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Fifteenth Annual Report, 1910, of the American Scenic and Historic Preservation Society

TO THE LEGISLATURE OF
THE STATE OF NEW YORK

TRANSMITTED TO THE
LEGISLATURE APRIL 19
1910

FOUNDED BY ANDREW H. GREEN AND
INCORPORATED BY THE LEGISLATURE OF
THE STATE OF NEW YORK IN 1895

ALBANY
J. B. LYON COMPANY, PRINTERS
1910

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STATE OF NEW YORK

No. 60.

IN ASSEMBLY

APRIL 19, 1910.

FIFTEENTH ANNUAL REPORT

OF THE

American Scenic and Historic Preservation Society.

NEW YORK, N. Y., *April* 18, 1910.

The Honorable JAMES W. WADSWORTH, JR., *Speaker of the Assembly, Albany, N. Y.:*

SIR: — I have the honor to transmit to the Legislature of the State of New York the fifteenth annual report of the American Scenic and Historic Preservation Society, as required by law.

Yours respectfully,

GEORGE F. KUNZ,

President.

REPORT.

New York, N. Y., *April* 18, 1910.

To the Legislature of the State of New York:

Pursuant to chapter 166 of the Laws of 1895, and laws amendatory thereof and supplementary thereto, the trustees of the American Scenic and Historic Preservation Society have the honor to present this, its fifteenth annual report.

OFFICERS, TRUSTEES AND COMMITTEES.

The officers. trustees, and standing committees of the Society are as follows:

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CHARTER.

An account of the founding of the Society by the Hon. Andrew H. Green in 1895 and its subsequent development will be found on pages sixteen to twenty-four of our Twelfth Annual Report.

The Society was originally incorporated by a special act of the Legislature of the State of New York (chapter 166 of the Laws of 1895), under the title of "The Trustees of Scenic and Historic Places and Objects," which title was changed by chapter 302 of the Laws of 1898 to "The Society for the Preservation of Scenic and Historic Places and Objects," and by chapter 385 of the Laws of 1901 to "The American Scenic and Historic Preservation Society." It had on January 1, 1910, a total membership of 569.

Its charter reads as follows:

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The following persons: William H. Webb,* Samuel D. Babcock,* John M. Francis,* Andrew H. Green,* Charles A. Dana,* Oswald Ottendorfer,* Chauncey M. Depew, Horace Porter, William Allen Butler,* Mornay Williams, George G. Haven,* Elbridge T. Gerry, Walter S. Logan,* Henry E. Howland, Edward P. Hatch,* William L. Bull, James M. Taylor, J. Hampden Robb, Ebenezer K. Wright,* Alexander E. Orr, William M. Evarts,* Wager Swayne,* Charles R. Miller, Frederick W. Devoe, Elbridge G. Spaulding,* Frederick S. Tallmadge,* Thomas V. Welch,* S. Van Rensselaer Cruger,* Frederick J. De Peyster,* Morgan Dix,* John A. Stewart, Charles C. Beaman,* Francis Vinton Greene, Peter A. Porter, M. D. Raymond, George N. Lawrence,* Benjamin F. Tracy, Augustus Frank,* Charles Z. Lincoln, John Hudson Peck, Sherman S. Rogers,* William Hamilton

* Now deceased.

Harris, Lewis Cass Ledyard, Alexander B. Crane, John Hodge,* Robert L. Fryer, J. S. T. Stranahan,* Samuel Parsons, Jr., Charles A. Hawley, Henry E. Gregory, Frederick D. Tappan,* Henry J. Cookingham, Henry R. Durfee, H. Walter Webb,* and such others as shall become associated with them in the manner and upon the terms and conditions prescribed by the by-laws of the corporation hereby created, are hereby constituted a body politic and corporate by the name of the American Scenic and Historic Preservation Society, with all the powers and subject to the provisions of the eleventh section of chapter thirty-five of the general corporation law as amended by chapter six hundred and eighty-seven of the laws of eighteen hundred and ninety-two, except as otherwise provided by this act, and shall be capable of purchasing, taking, receiving, and holding by gift, grant, devise, bequest, or otherwise, in trust or perpetuity, real and personal estate for the uses and purposes of said corporation, the value of which shall not exceed one million dollars. (Chapter 166, 1895, amended by chap. 302, 1898, and chap. 385, 1901.)

§ 2. The objects of said corporation shall be to acquire by purchase, gift, grant, devise, or bequest, historic objects or memorable or picturesque places in the State or elsewhere in the United States, hold real and personal property in fee or upon such lawful trusts as may be agreed upon between the donors thereof and said corporation, and to improve the same; admission to which shall be free to the public under such rules for the proper protection thereof as said corporation may prescribe, and which said property shall be exempt from taxation within the State of New York. (Chapter 166, 1895, amended by chap. 385, 1901.)

§ 3. The affairs and business of said corporation shall be conducted by a board of not less than five or more than thirty-five trustees, a quorum of whom for the transaction of business shall be fixed by the by-laws. The persons now constituting the board of trustees of said corporation shall continue to hold office until others are elected in their stead as provided by the said by-laws. Vacancies in the board of trustees may be filled in the manner prescribed by the said by-laws. (Chapter 166, 1895, amended by chap. 302, 1898, and chap. 385, 1901.)

§ 4. None of the trustees or members of said corporation shall receive any compensation for services, or be pecuniarily interested

* Now deceased.

directly or indirectly, in any contract relating to the affairs of said corporation, nor shall said corporation make any dividend or division of its property among its members, managers or officers. (Chapter 166, 1895.)

§ 5. The board of trustees shall annually, at a time to be fixed by the by-laws, elect or appoint from their number the following officers: A president, four vice-presidents and a treasurer, who shall hold office for one year and until their respective successors are elected or appointed, and shall perform such duties as are provided by the by-laws. The board of trustees may also appoint a secretary and define his duties, and shall have the power to manage, transact, and conduct all business of the corporation, to prescribe the terms of admission of its members, and to appoint and fix the compensation of and remove its employees at pleasure. The said corporation shall have no capital stock, and shall have no power to sell, mortgage or otherwise incumber any of its property. (Chapter 166, 1895, amended by chap. 385, 1901.)

§ 6. Said corporation shall annually make to the Legislature a statement of its affairs, and from time to time report to the Legislature, by bill or otherwise, such recommendations as are pertinent to the objects for which it was created, and may act jointly or otherwise with any persons appointed by any other State for similar purposes as those intended to be accomplished by this act, whenever the object to be secured or purpose sought to be accomplished, is within the jurisdiction of this and any other State, or can only be attained by such joint action. (Chapter 166, 1895.)

§ 7. This act shall take effect immediately.

FINANCES.

The Society is maintained by membership dues, the income from the Andrew H. Green Memorial Fund of $10,000 and occasional small donations. There are four classes of membership: Annual members pay $5 annually; sustaining members pay $25 annually; life members are those who have contributed $100 at one time; and patrons are those who have given $500 or more in property or money at one time. For its general work the Society receives no financial assistance from the State. Moneys appropriated by the State are applied exclusively upon the properties

of the State without any charge by the Society for its executive services, and are duly accounted for to the proper State officers. Detailed statements of the disbursements of such funds since our last annual report are given in the following pages.

Following is a statement of the receipts and disbursements of the general fund for the year ended December 31, 1909:

Debit.

To balance on hand January 1, 1909	$45 96
Received from annual memberships	2,157 60
Received from life memberships	100 00
Received from sustaining memberships	225 00
Received from Green Memorial Fund interest	400 00
Received from sale of reports, etc	14 90
Received from Mrs. Frederick F. Thompson	250 00
Received from Charles M. Dow for Burr-Hamilton marker	75 00
Received from Townsend Wandell legacy	500 00
Total debit	$3,768 46

Credit.

By paid on approved vouchers:		
Arrears of salary to Secretary, July 31–Dec. 31, 1908		$833 34
Secretary's salary, Jan. 1–Dec. 31, 1909		1,999 97
General printing and stationery		55 97
Special printing:		
500 extra copies annual reports	$65 00	
115 McGown Pass booklets	8 62	
		73 62
Postage, telegrams and bank exchange		104 94
Stenographic assistance		185 30
Public meetings, stereopticon		10 00
Telephone		11 39
Office rent		100 05
Car fares and traveling expenses		17 34
Press clippings		20 36
Messenger, freight and express		1 57
Photographic and drawing materials		14 52
Miscellaneous:		
Geneva landmark survey	$32 45	
Picture frames (Manor Hall)	11 00	
Binding reports	6 00	
Miscellaneous	1 25	
		50 70
Total credit		$3,479 07
Total debit		3,768 46
Balance on hand December 31, 1909		$289 [illegible]

The balance is on deposit with the National City Bank.

Following is a comparative statement of receipts and disbursements of the general fund since the organization of the Society fifteen years ago:

Year.	Balance on hand Jan. 1.	Received during year.	Expended during year.	Balance on hand Dec. 31.
1895	.....	$290 00	$82 50	$207 50
1896	$207 50	50 00	85 50	172 00
1897	172 00	20 00	.....	192 00
1898	192 00	.....	39 55	152 45
1899	152 45	1,160 00	541 94	770 51
1900	770 51	1,350 10	1,740 60	380 01
1901	380 01	2,645 98	2,016 11	1,009 88
1902	1,009 88	*6,850 77	7,556 75	303 90
1903	303 90	2,528 26	2,792 97	39 19
1904	39 19	2,968 60	2,881 59	126 20
1905	126 20	3,165 92	3,224 23	67 89
1906	67 89	3,764 83	3,752 40	80 32
1907	80 32	3,406 01	3,458 23	28 10
1908	28 10	2,969 33	2,951 47	45 96
1909	45 96	3,722 50	3,479 07	289 39
	.....	$34,892 30	$34,602 91	$289 39

ANDREW H. GREEN MEMORIAL FUND.

The Andrew H. Green Memorial Fund of $10,000 given by the heirs of the founder of this Society in November, 1906, is invested in gold certificates of corporate stock of the city of New York (registered), bearing 4 per cent. interest per annum. The terms of the deed of gift require the principal to be invested permanently, the income therefrom to be devoted to the promotion of the objects of the Society. The deed further requires that "each and every report to the Legislature of the State of New York of the statement of the affairs of the party of the second part, as required by its charter, shall contain a concise statement of the purposes and objects upon which the income from said fund has been expended since the time of the last preceding report." The total income from interest on the fund during the year ended December 31, 1909, was $400 and has been disbursed for the following purposes:

June 3, 1909.

No. 7. By paid American Scenic and Historic Preservation Society, general fund, for the following disbursements:

Stenographer, 12 weeks to 2/13 ..... $72 00

* Of which $3,889 was for Stony Point dedication.

Postage, 12/31/08	$15 50
Telephone, December, 12/31/08	1 58
Prof. Grabau's traveling expenses, 12/31	19 25
Lehmaier & Bro., printing, 12/31	13 35
Polhemus Ptg. Co., printing, 12/31	4 25
J. W. Brennan, Geneva survey, 2/19/09	32 45
Polhemus Ptg. Co., Printing, 2/19	16 60
Office rent, Jan., Feb., March	25 02

November 27, 1909.

No. 8. By paid American Scenic and Historic Preservation Society, general fund, for the following disbursements:

Part of office rent for May	8 34
Stenographer, 4 weeks ending 5/22	24 00
Postage, June 3	68
Duty on Philipse-Morris portraits 6/3	65
Express on Niagara cuts 6/3	45
Carfares, June 3	10
Bank exchange, June 21	1 02
Bank exchange, October 1	40
J. B. Lyon Co., 500 copies 14th Annual Report 11/4	65 00
Henry Romeike, clippings, May–Sept. 11/4	8 93
John Polhemus Printing Co., stationery 11/4	8 65
James E. Underhill, framing Morris portraits, 11/4.	11 40
Stenographer, 9 weeks ending 7/24, Nov. 4	59 70
Express (Nov. 4)	47
Boys at Weehawken (Nov. 4)	35
Telegram to Watkins (Nov. 4)	43
Office rent for November (Nov. 27)	8 33
J. A. Cooke, mimeographing (Nov. 27)	1 50
Total	$400 00

STONY POINT STATE RESERVATION.

Maintenance and Improvement.

Stony Point Battlefield State Reservation on the Hudson river is by law in the custody of this Society. From April 1, 1909, to April 1, 1910, we have expended upon the reservation $1,646.58 as itemized in the following accounts. With this modest sum we have kept the thirty-five acres of the State's property in excellent condition. The work of the year has been chiefly bestowed upon grading roads, opening the new right of way from the Mud bridge to the reservation, building retaining walls, and grading the ground around the memorial arch.

Dock Damaged.

We regret to report that the heavy storm of the fourth week of November, 1909, destroyed the small landing stage at the

steamboat dock and seriously damaged the latter by washing out the filling. The growing popularity of Stony Point park as a landing place, and the increased importance which it promises to assume with reference to the larger State park in Rockland county, indicates the advisability of rebuilding this dock in a more commodious and substantial manner than heretofore. We trust that the Legislature will make suitable provision therefor.

Conveyance to the State.

In our last report we stated that we had accepted in trust for the people of the State a new right-of-way from the public highway to the reservation, and also an acre of land adjacent to the reservation upon which the New York State Society of the Daughters of the Revolution erected a memorial arch. With a view to conveying the right of way and land to the State, the following bill was introduced in the Assembly by the Hon. Rutledge I. Odell and in the Senate by Hon. Howard R. Bayne on February 10, 1910:

An Act to provide for acquiring, without expense, an additional portion of the battlefield of Stony Point and a right of way thereto, in the town of Stony Point and the county of Rockland.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The commissioners of the land office are hereby authorized, on behalf and in the name of the people of the State of New York, and without expense to the State, to accept a conveyance of and acquire title to the following described lands and premises situated in the town of Stony Point and the county of Rockland, being an additional portion of the battlefield of Stony Point and adjoining the present State lands on the Stony Point peninsula, viz.: All that piece or parcel of land situated in the town of Stony Point, county of Rockland, and State of New York, bounded and described as follows: Beginning on the west line of the West Shore railroad lands at a point where said west line intersects the line between the lands late of John Ten Eyck and the lands late of Watson and Frederick Tomkins, and running

thence along the said west line of the West Shore railroad lands south nine degrees west, three hundred and twenty-five feet; thence north sixty-one degrees thirty minutes west, two hundred and thirty-nine feet; thence north seventeen degrees east eighty feet; thence north thirty-seven degrees twelve minutes east, one hundred and sixty-one feet to the south line of the said lands late of John Ten Eyck; thence south forty-one degrees twenty minutes east, ninety-four and seven-tenths feet; thence north forty-one degrees forty-five minutes east, one hundred and seven feet to the place of beginning, containing one and six-hundredths acres of land.

§ 2. The commissioners of the land office are also authorized, on behalf and in the name of the people of the State, and without expense to the State, to acquire a right of way leading from, at or near the Mud bridge so called at the peninsula of Stony Point, in the county of Rockland, eastwardly to the State reservation and property mentioned and described in section one of this act.

§ 3. When the property described in section one of this act and the said right of way shall have been acquired as herein provided, said additional lands and right of way shall form and become a part of the Stony Point battlefield State reservation acquired pursuant to chapter seven hundred and sixty-four of the laws of eighteen hundred and ninety-seven, entitled "An act to provide for acquiring the site of the battle of Stony Point in Rockland county and making an appropriation therefor," and in accordance with any acts amendatory thereof or supplementary thereto.

§ 4. This act shall take effect immediately.

Memorial Arch Dedicated.

The handsome stone memorial arch which was erected by the New York State Society of the Daughters of the Revolution and which was described in our last report was dedicated with impressive ceremonies as a feature of the Hudson-Fulton Celebration at Stony Point on Saturday, October 2, 1909. A full account of the proceedings will be found in Appendix D.

Visitors.

The number of visitors to the reservation from April 1, 1909, to April 1, 1910, was 23,777, the largest number on record. The

foregoing represents the number of visitors actually counted by the superintendent except on Saturday, October 2, 1909, during the Hudson-Fulton ceremonies, the attendance at which is estimated. It is also believed that on other days there were many visitors who were not counted, and that the actual attendance was much larger than the above figure indicates.

Financial Statement.

Following is a statement of the State funds received and disbursed from April 1, 1909, to April 1, 1910:

Chapter 465, *Laws of* 1908.
(Appropriation $600)

DEBIT.

1909.	Previously reported	$200 00
April	16. Received from State Treasurer	100 00
June	25. Received from State Treasurer	100 00
Aug.	16. Received from State Treasurer	100 00
Nov.	26. Received from State Treasurer	100 00
		$600 00

1909. CREDIT.

Voucher.			
		Previously reported	$200 00
5. April	16.	Wm. Ten Eyck, keeper, February	50 00
6. April	16.	Wm. Ten Eyck, keeper, March	50 00
7. June	15.	Wm. Ten Eyck, keeper, April	50 00
8. June	15.	Wm. Ten Eyck, keeper, May	50 00
9. Aug.	14.	Wm. Ten Eyck, keeper, June–July	100 00
10. Nov.	1.	Wm. Ten Eyck, keeper, August–September	100 00
		Total credit	$600 00
		Total debit	600 00

Chapter 466, *Laws of* 1908.
(Appropriation $1,000.)

DEBIT.

1909.	Previously reported	$885 32
May	14. Received from State Treasurer	79 00
Aug.	16. Received from State Treasurer	35 68
		$1,000 00

1909. CREDIT.

Voucher.			
		Previously reported	$885 32
4. May	4.	Rockland Construction Co., guying flag-staff	79 00
5. Aug.	14.	Wm. G. Baisley, grading, etc.	35 68
		Total credit	$1,000 00
		Total debit	1,000 00

Chapter 432, *Laws of* 1909.

(Appropriation $600.)

Debit.

1909.		
Dec. 23.	Received from State Treasurer	$100 00
1910.		
March 8.	Received from State Treasurer	100 00
		$200 00

Credit.

1909.		
Voucher.		
1. Dec. 12.	Wm. Ten Eyck, keeper, October–November	$100 00
1910.		
2. March 2.	Wm. Ten Eyck, keeper, December–January	100 00
	Total credit	$200 00
	Total debit	200 00

Chapter 433, *Laws of* 1909.

(Appropriation $1,000.)

Debit.

1909.		
July 23.	Received from State Treasurer	$298 00
Aug. 16.	Received from State Treasurer	224 32
Sept. 10.	Received from State Treasurer	245 23
Dec. 23.	Received from State Treasurer	50 00
1910.		
Jan. 7.	Received from State Treasurer	112 85
March 8.	Received from State Treasurer	1 50
		$931 90

Credit.

1909.		
Voucher.		
1. July 15.	Wm. G. Baisley, grading roads, building stone wall, etc.	$250 00
2. July 15.	Geo. A. Wood, painting interior keeper's house	48 00
3. Aug. 14.	Wm G. Baisley, grading, building stone wall, etc.	224 32
4. Aug. 31.	Martin Mulvhail, labor on grounds	27 62
5. Aug. 31.	Wm. Weyant, crushed stone and timber	217 61
6. Dec. 12.	Haverstraw Water Supply Co., water, May 1, 1908–May 1, 1909	50 60
7. Dec. 27.	Rockland Construction Co., landing stage	112 85
1910.		
8. March 2.	E. D. Keesler, lettering sign-board	1 50
	Total credit	$931 90
	Total debit	931 90

WATKINS GLEN STATE RESERVATION.

Physical Statistics.

Watkins Glen State Reservation is by law in the custody of this Society. The Glen, as is well known, is at the head of

Seneca lake, and extends westward from Franklin street in the village of Watkins. During the past year accurate measurements of various physical features of the Glen have been made, with the following results:

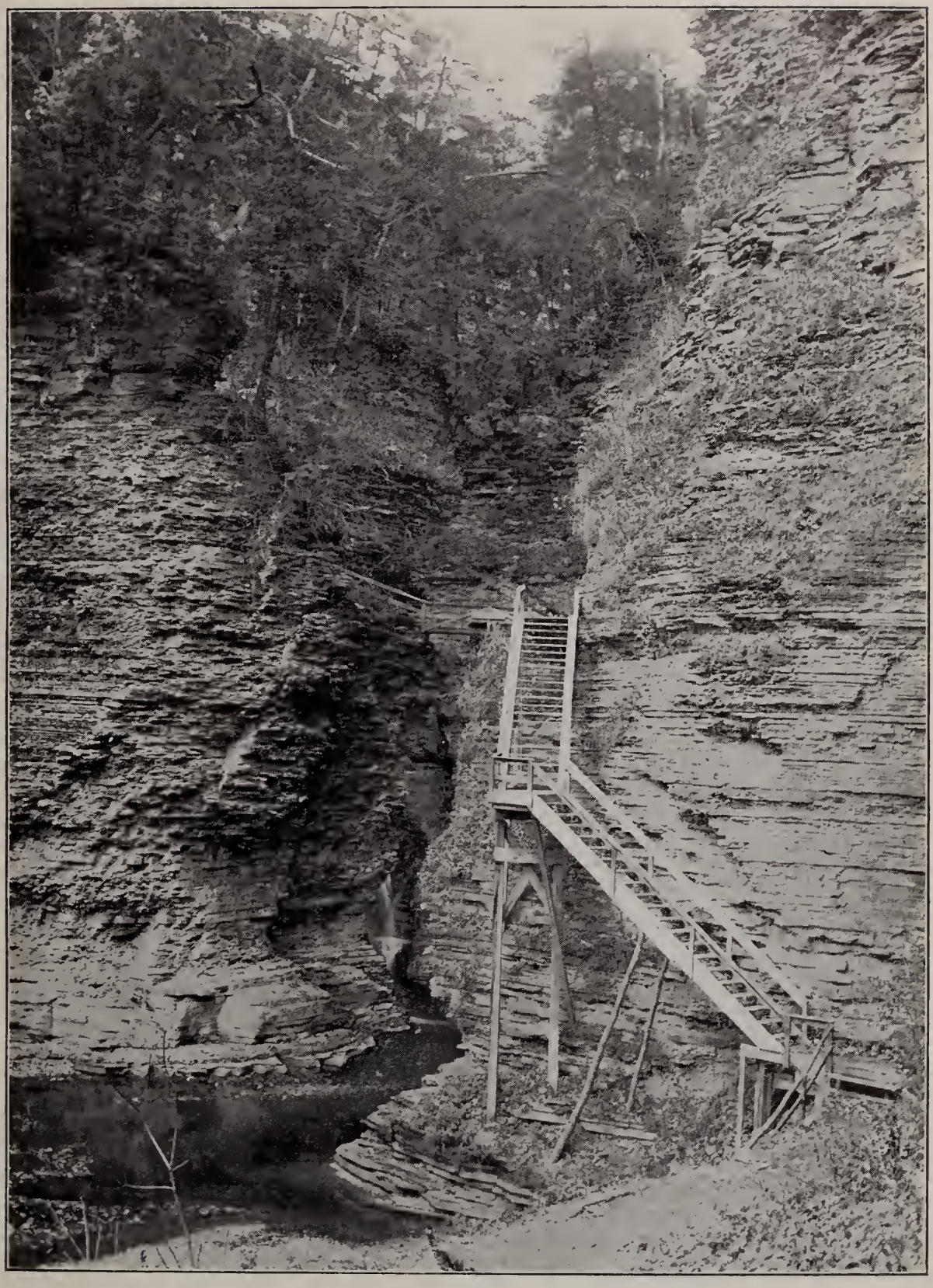
Number of acres in Glen property, 103.359.
Elevation from Main street to N. Y. C. R. R. bridge, 530 feet.
Distance from Main street to N. Y. C. R. R. bridge, 1.54 miles.
One-half way through Glen is at Central cascade.
Number of steps in Glen, lower path, 566.
Number of steps in Glen, upper path, 632.
Pool at Entrance cascade is 12 feet deep.
Pool at Cavern cascade is 18 feet deep.
Pool at Central cascade is 26 feet deep.
N. Y. C. R. R. bridge is 165 feet above water in Glen.
Suspension bridge is 85 feet above water in Glen.
Sentry bridge is 52 feet above water in Glen.
Cliff at Lookout point is 140 feet above water in Glen.
Cliff at Glen Cathedral is 178 feet above water in Glen.
Cliff at entrance to Glen, south side, is 150 feet above water in Glen.
Cliff at entrance to Glen at stairs is 140 feet above ground.
Longest stairs in Glen is 47 steps.

Maintenance and Improvements.

From April 1, 1909, to April 1, 1910, we have spent upon maintenance and improvements the sum of $9,471.16 as more particularly stated hereafter. The most striking improvement which has been made has been at the entrance to the Glen proper, as represented in the two contrasting pictures shown herewith. Before the property came into the custody of this Society, the entrance to the Gorge — the most salient feature of the scenery — was disfigured by a long flight of dilapidated wooden stairs leading to an equally unsightly wooden bridge across the Glen, both supported by numerous braces and supports. The effect of these structures, with their many disfiguring lines, was to impair seriously the natural charm of this view. With the object of restoring the scenery more nearly to its natural appearance, and to make the artificial structures which were necessary

harmonize as well as possible with their natural surroundings, we have removed the wooden structures entirely; constructed a concrete walk, protected with iron railing, leading to the face of the cliff at the entrance; a flight of eighteen concrete steps leading up to the portal of a tunnel excavated in the cliff itself; concrete stairs within the tunnel out of sight leading up to the Sentry bridge; and a reinforced concrete arch bridge across the Glen. The exterior finish of the concrete work of the stairs and bridge is a rough mixture of concrete and local stone, and the whole washed with acid to give it the color of the native cliffs. The result has been a complete transformation of the scene. The balustrades of the stairs are in block form, twenty-two inches high and twenty-two inches wide. The stairs have seven-inch risers, and twelve-inch treads, the same as all new stairs in the Glen. They are eight feet wide between the balustrades. The stairs have a balcony at the top landing. The stairs have been erected under a shelf of rock, to protect them from falling ice and stones from the cliff 140 feet above. At the three landings in the tunnel concrete floors have been laid. There is a hand rail on both sides, the entire length. The balustrades of Sentry bridge are thirty inches high and ten inches wide. The walk between the balustrades is five feet wide and fifty-seven feet long. The bridge connects the upper portal of the tunnel with the stairs leading to Stillwater gorge. The bridge was poured in one day, the concrete being brought down from the cliff above — a distance of 140 feet — on a tramway propped up from the rocks fifty-two feet below.

Other improvements have been as follows: A flight of concrete stairs with balustrades has been built from the south end of Sentry bridge to Glen Alpha. Wooden stairs have been built leading from Sentry bridge to the path above and stairs from Glen Alpha to the path above. A retaining wall, 120 feet long and 16 feet high, faced with natural stone tied into a reinforced concrete wall, has been built where the Swiss cottage was. Upon the wall is a regular Glen pipe-railing connecting with the railing on Suspension bridge. The path, 800 feet long, connect-



WATKINS GLEN, N. Y.
Entrance to Glen before improvement. See page 23.

Watkins Glen, N. Y.
Entrance to Glen after improvement. See page 23.

WATKINS GLEN, N. Y.
Near view of Portal at Entrance to Glen. One of many improvements.
See page 23.

ing the Long stairs with Sylvan gorge, has been completed. It is protected with iron pipe-railing. At the upper end of the path has been made a tunnel thirty feet long, nine feet high and seven feet wide, connecting the path with the stairs leading to the rapids. The path leading to the rapids has been widened with concrete retaining beams and slabs. At the foot of Sylvan gorge a flight of steps has been cut out of the natural rock. At Stillwater gorge the path has been widened to four feet and cut down from four to five feet to the grade. The path leading west from Suspension bridge 400 feet and connecting with Lovers' lane has been excavated, graded and protected with regular Glen railing. At Rainbow falls 500 cubic feet of rock has been excavated for a path and the work has been completed except the placing of the railing. The pipe and standards for the latter are on hand ready for erection in the spring. New wooden stairs have been built at Glen Cathedral and the upper half of the Grand stairs has been rebuilt. A new wooden bridge has been constructed at Shadow gorge. The path leading east from Lookout point to Glen Wood has been excavated, graded and guarded by the regular Glen railing. All old iron railings have been given one coat of paint and the new railings two coats of silica graphite paint. The loose rock on the overhanging cliffs has been "scaled;" all old railings, bridges, stairs, etc., have been repaired; and vines and trees set out in various places. The landslide at the entrance is in good condition; the trees set out a year ago are doing finely and no gravel has come down.

Forest Fire.

A fire started in the woods on the north side of the Glen west of Suspension bridge, but it was put out by the Glen employees before any damage was done. The fire was caused by the burning of rubbish in the adjoining cemetery.

Number of Visitors.

The improvements in the Glen have been greatly appreciated by the public. The free admission under State ownership, the

greater accessibility, the greater safety, and the restoration of the natural beauty, have so increased the attractiveness of the place that the New York Central railroad now advertises the Glen as one of the principal scenic features of its line. During the past year, it is estimated that no less than 60,000 persons have visited the Glen.

Financial Statement.

From April 1, 1909, to April 1, 1910, we have expended $9,471.16 in maintenance and improvements as follows:

Chapter 466, *Laws of* 1908.
(Appropriation $22,825.)

Debit.

Received from State Treasurer, previously reported		$10,874 01
Received from concessions, sales, etc., previously reported		914 03
1909.		
April 28.	Received from State Treasurer	601 27
May 28.	Received from State Treasurer	2,126 90
July 7.	Received from State Treasurer	3,032 58
July 23.	Received from State Treasurer	775 41
Aug. 31.	Received from State Treasurer	370 39
Sept. 22.	Received from State Treasurer	190 27
Oct. 4.	Received from F. W. Hurley, concessions	75 00
Oct. 29.	Received from State Treasurer	85 50
Nov. 24.	Received from E. H. Hall, for bank exchange	10
Nov. 26.	Received from State Treasurer	169 30
Dec. 23.	Received from State Treasurer	258 18
1910.		
Jan. 14.	Received from State Treasurer	37 14
Feb. 15.	Received from State Treasurer	500 60
March 17.	Received from State Treasurer	1 38
	Total debit	$20,011 46

Credit.

Voucher.		
	Disbursements previously reported	$11,788 04
	April 6, 1909.	
265.	S. B. Brown, caretaker, March	41 66
266.	J. E. Frost, 2d, superintendent, March	83 33
267.	Jacob Mills, caretaker, March	41 66
268.	Woodward & Stouffer, iron pipe and hardware	434 62
	May 15, 1909.	
269–302.	Labor	1,151 50
303.	S. B. Brown, caretaker, April	41 66
304.	J. E. Frost, 2d, superintendent, April	83 33
305.	Jacob Mills, caretaker, April	41 66
306.	Collins Bros., lumber	15 17
307.	James P. Drake, lumber	194 96
308.	Forest, Fish & Game Commission, trees	5 97
309.	C. S. & C. H. Frost, iron, etc.	127 19

310.	Woodward & Stouffer, hardware	$61 71
311.	Northern Central Railway, freight	60 00
312.	Candee, Smith & Howland, cement	343 75
	June 15, 1909.	
313–358.	Labor	1,805 24
359.	S. B. Brown, caretaker, May	41 66
360.	J. E. Frost, 2d, superintendent, May	83 33
361.	Jacob Mills, caretaker, May	41 66
362.	Collins Bros., lumber	11 34
363.	James P. Drake, cement, etc.	248 47
364.	M. E. Farrand, cartages	11 80
365.	C. S. & C. H. Frost, hardware, etc.	90 13
366.	M. B. Hughey, 2 prs. rubber boots	9 00
367.	Pierce & Bickford, estimates, etc.	42 40
368.	J. C. Roe, gravel and sand	58 75
369.	Seneca Engineering Co., mixer and engineer	19 75
370.	P. B. Sullivan, coal	4 50
371.	John V. Van Pelt, designs, etc.	341 95
372.	Woodward & Stouffer, hardware, etc.	222 60
	July 10, 1909.	
373–388.	Labor	441 63
389.	S. B. Brown, caretaker, June	41 66
390.	J. E. Frost, 2d, superintendent, June	83 33
391.	Jacob Mills, caretaker, June	41 66
392.	James P. Drake, cement, lumber, etc.	29 51
393.	C. S. & C. H. Frost, hardware, etc.	22 88
394.	J. B. Lyon Co., printing	10 04
395.	Glenfield Conservatories, plants, etc	12 50
396.	Woodward & Stouffer, plumber, helper, etc.	92 20
	August 10, 1909.	
397–403.	Labor	183 80
404–409.	Advertising	22 14
410.	C. B. Mabie, notarial fees	3 13
411.	James P. Drake, lumber	2 60
412.	Chas. A. Gates, sign	5 00
413.	C. S. & C. H. Frost, repairing benders	3 00
415.	Woodwward & Stouffer, hardware, plumber, etc.	65 26
415.	S. B. Brown, caretaker, part of July	21 36
416.	J. E. Frost, 2d, superintendent, part of July	42 73
417.	Jacob Mills, caretaker, part of July	21 37
	September 3, 1909.	
418–421.	Labor	113 50
422–423.	Advertising	7 00
424.	C. B. Mabie, notarial fees	2 76
425.	Chas. A. Gates, painting signs	10 00
426.	Woodward & Stouffer, supplies, plumbers, etc.	50 20
427–428.	Advertising	6 81
	October 12, 1909.	
429–434.	Labor	47 25
435.	C. B. Mabie, notarial fees	2 00
436.	Seneca Engineering Co., surveying	10 10
437.	Daniel Sullivan, labor	18 00
438.	Woodward & Stouffer, hardware	7 85
439.	State Treasurer, receipts from concessions	75 00
	November 10, 1909.	
440–445.	Labor	110 60
446.	Jos. Dixon Crucible Co., paint	27 50

447.	C. S. & C. H. Frost, sharpening drills	$15 25
448.	Seneca Engineering Co., pavilion	6 20
449.	Woodward & Stouffer, dynamite, etc.	9 75
	November 24, 1909.	
	Bank exchange	10
	December 10, 1909.	
450.	Roxa Nixon, removing building	100 60
451–452.	Labor	38 05
453.	C. B. Mabie, notarial fees	3 88
454.	C. S. & C. H. Frost, railing, posts, etc.	95 50
455.	Woodward & Stouffer, cement, dynamite, etc.	20 75
	January 7, 1910.	
456.	Evans Banks, labor	6 40
457.	J. E. Frost, 2d, postage, etc.	16 86
458.	C. A. Gates, signs	12 00
459.	C. B. Mabie, notarial fees	1 88
	February 10, 1910.	
460.	Abel Hodgkins, work on pavilion	500 00
461.	C. B. Mabie, services as notary public	1 38
	Total credit	$20,011 46
	Total debit	20,011 46

Chapter 433, *Laws of* 1909.

(Appropriation $4,000.)

DEBIT.

Aug. 31.	Received from State Treasurer	$81 19
Sept. 22.	Received from State Treasurer	166 65
Oct. 29.	Received from State Treasurer	166 65
Nov. 26.	Received from State Treasurer	166 65
Dec. 23.	Received from State Treasurer	166 65
1910.		
Jan. 14.	Received from State Treasurer	166 65
Feb. 15.	Received from State Treasurer	166 65
March 17.	Received from State Treasurer	166 65
		$1,247 74

CREDIT.

Voucher.		
	August 10, 1909.	
1.	S. B. Brown, caretaker, balance, July	$20 30
2.	J. E. Frost, 2d, superintendent, balance, July	40 60
3.	Jacob Mills, caretaker, balance, July	20 29
	September 3, 1909.	
4.	S. B. Brown, caretaker, August	41 66
5.	J. E. Frost, 2d, superintendent, August	83 33
6.	Jacob Mills, caretaker, August	41 66
	October 12, 1909.	
7–9.	Superintendent and caretakers as above, September	166 65

	November 10, 1909.	
10–12.	Superintendent and caretakers as above, October.....	$166 65
	December 10, 1909.	
13–15.	Superintendent and caretakers as above, November..	166 65
	January 7, 1910.	
16–18.	Superintendent and caretakers as above, December...	166 65
	February 10, 1910.	
19–21.	Superintendent and caretakers as above, January....	166 65
	March 1, 1910.	
22–24.	Superintendent and caretakers as above, February..	166 65
	Total credit	$1,247 74
	Total debit	1,247 74

Geological Survey of the Watkins District.

In our Eleventh Annual Report (1906) we transmitted an able paper upon the physiography of Watkins Glen by Prof. Ralph S. Tarr of Cornell University. A further important contribution to the geological history of the Glen and the surrounding district has been made by the United States Geological Survey in the publication, in February, 1910, of a Geological Atlas of the United States (" Folio No. 169 ") mapping and describing what is called the Watkins Glen-Catatonk district. The area covers about 1,770 square miles in Chemung, Schuyler, Tompkins, Tioga and adjacent counties and includes the cities or towns of Elmira, Ithaca, Owego and Watkins and part of Waverly. The authors of the folio are Profs. Henry S. Williams and Ralph S. Tarr of Cornell University, and E. M. Kindle of the Geological Survey.

In the text of the folio, the topography, the geologic strata and structure, and the igneous rocks, the glacial deposits and results of glacial action are described, and a chapter on the geological history outlines the changes which have taken place in the area from the earliest known geological time to the present. The mode of origin of the picturesque gorges and many other striking topographic features of this region has been a theme of much discussion among geologists, particularly as to the part played by ice and by water. Professor Tarr considers in detail many of

these features and presents the latest scientific judgment concerning their origin. A chapter on the economic geology of the region includes accounts of the deposits which are available for use, of the underground and surface waters, and of the soils and forests.

The folio contains six topographic geologic maps and thirty-seven illustrations, including geologic sections and half-tone plates. It can be obtained from the director of the survey at Washington in either folio or octavo form. The size of the folio is about eighteen by twenty-two inches (the size of the maps); that of the octavo (242) pages is about six by nine inches, the maps being folded within a pocket. The price of either edition is twenty-five cents.

LETCHWORTH PARK.

Maintenance and Improvements.

We are happy to report that the Hon. William Pryor Letchworth, LL. D., the generous donor of Letchworth park to the State of New York, is still in the enjoyment of such measure of health as permits him to continue his tenure of the beautiful property and his personal oversight of its maintenance and improvements. In accordance with the terms of the deed of gift, Mr. Letchworth retains a life tenure of the property, and thus this superb estate of 1,000 acres, embracing the three famous Portage falls and gorge on the Genesee river, in the acquisition and improvement of which the philanthropist has spent about $500,000, continues to be maintained without expense to the State. Although the legal custodianship of Letchworth park does not devolve upon this Society during Mr. Letchworth's life tenure — which, we sincerely trust, may be prolonged many years — yet we are in intimate co-operation with him in all that he is doing to carry out his long-cherished plan to perfect the park for the public enjoyment.

During last summer much needful work was done about the Lower Falls, including the making of a road from the highway along the bank of the river to the head of the stairway leading

to Table Rock. The making of the road involved heavy work, as it was necessary to cut through a heavily timbered forest and to remove many large trees and rocks. The road is made along the border of the tableland, so that the visitor can get pleasing views of the river, Table Rock and Cathedral Rock before reaching the stairway. Improvements have been made to the picnic grounds at the termination of this road, so as to provide shelter and rest for tourists during a storm, and seats have been provided so as to add to the comfort of visitors. Much has been done in the way of clearing up the surrounding forest.

Another task was performed last summer, the undertaking of which has been postponed for several years on account of the difficulty and danger attending it. This improvement consists in bringing into view from the highway a portion of the gorge between the Middle and the Lower Falls, which had been hidden by the dense forest growth on the hillside. The work embraced a wide cutting beginning at the top of the hill a few rods above the rock on which is placed the memorial tablet to Prof. James Hall and continuing down a very steep declivity which terminates at the edge of a precipice of several hundred feet. Notwithstanding the precautions taken to prevent accidents, the foreman of the work, Mr. Harmon H. Doolittle of Hornell, in consequence of a misstep would have gone over the cliff but for the ropes by which he was made secure. The work was completed without further mishap, and the view made possible thereby is very striking and picturesque, bringing out the huge battlemented cliffs in the gorge below and the far distant hills.

The James Hall Tablet.

The tablet to Prof. James Hall, above alluded to, was put in place in the fall of 1908. As will appear from the accompanying photograph, it is a simple but graceful bronze memorial, set upon the face of the living rock forming a part of the geological group known as the Portage formation. The tablet is located on the westerly side of the highway about 684 feet northeast of the bridge over De-ge-ya-soh creek. The inscription reads as follows:

James Hall
State Geologist of New York
1837–1898
Established in this
Fourth Geological District
The classification of a large part of the
New York System of Geological Formations
Which gave enduring repute to the Geology of New York.
This Gorge exhibits the typical expression of Hall's
Portage Group
whose rocks carry an assemblage of organic
remains most widely diffused throughout the world.
This tablet has been erected by
Charles D. Walcott, Sect'y Smithsonian Institution.
John J. Stevenson, Prof. Geology N. Y. University.
John C. Smock, Commissioner Geological Survey of New Jersey.
Charles Schuchert, Prof. Geology Yale University.
John M. Clarke, N. Y. State Geologist.
1908

Indian Memories of Glen Iris.

The strength of the Seneca Indians as the most powerful nation of the Iroquois confederacy was no doubt due in large part to their location in the fertile Genesee valley, and it was natural that they should regard this beautiful river, with its remarkable gorge and falls at Portage, with peculiar reverence. Prof. Arthur C. Parker, archaeologist of the New York State Museum,* writes to Mr. Letchworth, under date of January 26, 1910:

"Several days ago one of the Cattaraugus Indians, a Seneca, told me that his father always referred to the Lower Falls and indeed the whole gorge from the Upper to the Lower Falls as Ga-gwa-dio, which means 'Sun-rising-up.' I wrote down the name, thinking it might interest you."

* Professor Parker is partly of Indian descent. His Seneca name is Ga-wa-so-wa-neh, a war-chief's name of the Bear Clan. Gen. Ely Samuel Parker, the famous Seneca chief, was his father's uncle. General Parker's boyhood name was Ha-sa-no-an-da, but when he was elected doorkeeper of the League of the Iroquois he received the name and title of Do-ne-ha-ga-wa. General Parker was of the Wolf Clan.

LETCHWORTH PARK, N. Y.

"Through its rock-bound battlements flows down the Genesee." See page 31.

Letchworth Park, N. Y. Tablet to Memory of James Hall, Geologist. See page 32.

In another letter received from Mr. Parker, dated February 1st, in which he acknowledges the receipt of some photographs of Glen Iris, he wrote as follows:

"The mounted photographs of scenes about Glen Iris together with a back and a title sheet containing your inscription came safely by express yesterday. I am deeply in debt to you for these beautiful pictures. I appreciate them not only because of the giver but also because of their historical associations. As I again turn over the pages of the book of scenes I do not wonder that my people believed that the sun was wont to pause in his journey over and sit for a moment to gaze upon the gorge and the falls. It is at such times, I dare say, that he sends his mystic light into the misty vapors that float up and creates the Iris which gives the glen its name. Our artist has studied these pictures with a great deal of satisfaction and contemplates making a series of panels for our Genesee valley ethnological group. Before he does so, however, it is his intention to visit the spot and absorb its spirit and its color.

"I thank you most heartily for the gifts and for the courtesies that have made my work easier."

The Proposed Portage Dam.

As the State Water Supply Commission continues to recommend the construction of a water-storage reservoir just above the Upper Fall at Portage and abutting Letchworth park, we are constrained to renew the objections which we have heretofore made against this project.

To our argument that a great artificial dam would diminish the natural beauty of Letchworth park, it is answered that the dam and reservoir would prove a source of pleasure and admiration and would become a feature worthy of a visit like the Niagara power-houses. That depends entirely upon the point of view. To the person interested in power development it is axiomatic that a power development would be interesting; but few people go to Niagara Falls expressly to see the power developments as intimated by the Water Supply Commission. They go to see the falls. And if the erection of a power plant at Portage

will injure Letchworth park by disfiguring the scenery, creating unwholesome conditions like the storage reservoirs in the Adirondacks, and reducing the flow over the falls to the minimum flow of a very dry season, the increased pleasure which it may give to the few people interested financially or otherwise in power development should hardly be regarded as an offset against the diminished pleasure of the majority who go there to see the natural scenery. The comparison with Niagara Falls cannot fail to recall the effect of the diversion of water for power purposes there, which has so threatened the existence of the falls that the intervention of two nations has been invoked to prevent the complete obliteration of the cataract.

There is, of course, a proper line beyond which considerations of sentiment and love of natural beauty alone should not be urged in the face of pressing needs for material relief; but we are of the opinion that the case of Letchworth park does not represent such a limitation. In the first place, the sentimental argument does not stand alone. It is reinforced by — or, to put it the other way, it reinforces — the tremendously important physical argument that the site is geologically unsafe and that the construction of the dam at the Portage site will create a menace to life and property between Portage and Lake Ontario which cannot be disregarded. We do not see that the engineers of the State Water Supply Commission have yet answered the very convincing demonstration by Prof. A. W. Grabau of Columbia University which we quoted in our last report. In the second place, the location of the dam and reservoir above Portage Falls does not appear to be an exigent necessity in view of the fact that other sites have been surveyed and recommended by other engineers at points below — that is, down stream from — Letchworth park, and declared to be sufficient for flood control and power development. In fact, it would appear that one of those lower sites would be of more advantage than the Portage site to the manufacturing interests at Rochester, for the reason that it takes about thirty-six hours for the "peak" of a flood wave to travel from Portage Falls to Rochester, and if the ordinary flow

travels at the same rate, the "peak" discharge from a power plant at Portage Falls would reach Rochester at an hour when it would be least useful to the hydraulic interests of that city.

We, therefore, still entertain the hope that the Legislature will see the wisdom of selecting a site lower than that at Portage.

YONKERS MANOR HALL.

The venerable Philipse Manor Hall at Yonkers, N. Y., which, through the generosity of the late Mrs. Wm. F. Cochran, was conveyed to the State of New York in 1908, to be in the custody of this Society, is still used by the municipal government as the city hall of Yonkers, as the new city hall is not yet completed. As soon as the building is vacated by its present occupants, we shall take possession of the property and begin the restoration of the building as a public monument.

In May, 1909, the Society received from the Hon. Herbert Morris Bower, then mayor of Ripon, England (a great-grandson of Col. Roger Morris and his wife, Mary Philipse Morris), two large photographic copies of portraits of Colonel Morris by Benjamin West and Mrs. Morris by John Singleton Copley. These have been suitably framed and labeled and placed in the Manor Hall, in which Colonel and Mrs. Morris were married in 1758. The portraits are of great interest, on account of the association of their subjects with the Manor Hall, the details of the portraits, and the distinguished artists by whom they were executed. Colonel Morris is represented in the uniform of the British army. His wife is depicted in a white satin gown with a gold embroidered belt. Around her shoulder is draped a spotted pink fichu. Her hair is raised over a cushion, a la mode, but it is not powdered. The painting of this portrait by Copley possesses additional interest from the fact that Washington sat to him in 1755, the year before Washington met Mary Philipse.

Copley married Alice de Lancey of New York and was a fashionable portrait painter among New York women. His portraits are not only valuable as representations of the costumes

of the period, of which he was a faithful delineator, but he, in turn, exercised no little influence over the dress of the period. He was a lover of fine dress, and not only dressed himself with attention to form and color, but also had his own theories about women's dress which he carried out elaborately in his pictures. His granddaughter says that "the beautiful costumes which we admire to-day in the stately portraits of our grandmothers' times were the results of his combined taste and study." He paid scrupulous attention to the values of the dress, hair, head-coverings, and jewels, and deliberately introduced such features as birds, dogs, squirrels, corsage bouquets, etc.

Through the generosity of Mrs. Cochran's son, Mr. Alexander S. Cochran, the Society will publish during the current year a book on "Philipse Manor Hall: The Site, the Building and Its Occupants," embodying the latest original researches at home and abroad concerning the history of one of the most prominent families of the colonial period of New Netherland and New York, and the great manor which bore its name.

FORT BREWERTON STATE RESERVATION.

The Fort Brewerton State reservation of one acre at the foot of Oneida lake, which is in the official custody of this Society, remains in the condition in which it was at the time of its purchase in 1906.

TAPPAN MONUMENT PROPERTY.

The Andre monument property in Tappan, N. Y., purchased by the Society in 1905, has required no attention during the past year. The monument erected by Mr. Field to mark the place of execution of the British spy and the tablet erected by this Society commemorating the fortitude of Washington and his generals, continue to be objects of popular interest and instruction.

HAMILTON DUELING GROUND LOCATED.

We are indebted to our fellow trustee, the Hon. Charles M. Dow, of Jamestown, for the means with which to erect a marker

upon the site of the duel between Alexander Hamilton and Aaron Burr in Weehawken. The memorial — which will be a simple granite marker, as the place is unsuitable for a larger monument — will be placed as soon as permission can be obtained from the Erie Railroad Company in whose right of way the site lies. It will bear the following inscription:

At this Place
Alexander Hamilton Fell
In the Duel with Aaron Burr
July 11, 1804.
Erected by
The American Scenic and
Historic Preservation Society
1910

As the site was fixed with no little difficulty by the Society's committee, consisting of Mr. Samuel V. Hoffman and the Secretary, aided by Mr. Henry Whittemore, the antiquarian, in person, and Mrs. Grace Van Rensselaer King by descriptions, its location may be particularly described as follows:

The West Shore railroad ferry-boat which leaves the foot of West Forty-second street, New York, lands at Weehawken, N. J., opposite the New York city block bounded by West Forty-ninth street on the south and West Fiftieth street on the north. Walking southward from the Weehawken ferry-house on the Jersey side a short distance, the road turns westward and crosses the West Shore railroad tracks by means of a bridge. The southern side of this bridge is in a line with the northern side of West Forty-eighth street, New York. If one descends to the railroad tracks and, beginning at a point vertically beneath the south side of the bridge, measures southward along the westernmost rail 1,400 feet, he will notice on the western side of the track, for a distance of about 250 feet (that is, from 1,400 feet to 1,650 feet south of the starting point) a vertical rock face about 25 feet high where the ground has been blasted away to make way for the Fort Lee road, which preceded the West Shore railroad. At this place, the shore line east of the railroad tracks projects into

the river about 75 feet beyond the tracks or about 135 feet from the rock face of the cliff before referred to. At the end of this point there was formerly a pier, the triple lines of piles of which still extend from the shore out into the river opposite a point about 1,480 feet south of the starting point. Ninety feet further south (1,570 feet from the point of beginning) there stands a moderate sized tree.

This little projection of the shore east of the right of way of the railroad may be located with reference to New York city by saying that if the line of West Forty-second street, New York, were projected to the Jersey shore, it would exactly intersect the point in question.

Here, before the old Fort Lee road was built, there was a beautiful natural point of land having on its top, at an elevation of from twenty-five to thirty feet above the river, a plateau. That plateau was the famous Weehawken dueling ground upon which Burr and Hamilton and many others fought. (See list of duels in our report for 1906, page 180.) The ground was so high that rowboats could approach and land on opposite sides without the occupants seeing each other; and at the same time, the duellists on the plateau above were out of sight of the oarsmen left in the boats below.

A few months after the duel, the St. Andrew's Society, of which Hamilton was a member, erected a monument upon the place where Hamilton fell. A small picture of it may be seen in Charles H. Winfield's "History of Hudson County, N. J." (1874.) It had a square base and pyramidal top. The memorial slab, thirty-four inches wide and twenty-six and one-half inches high, bore the following inscription:

On this spot
Fell,
July 11th, 1804
Major General
Alexander Hamilton.
As an expression
of their affectionate Regard

to his Memory
and of their deep regret
for his Lofs,
The St. Andrew's Society
of the State of New York
have erected
This Monument.

Owing to the sensitive state of public opinion following the duel, one effect of this well-intended memorial was to evoke the criticism that it tended to keep alive the "code" and promote duels. As a consequence, the monument was taken down about the year 1820 or 1821. In 1833 Hugh Maxwell, President of the St. Andrew's Society, found the slab in a junk shop. He bought it, and later he presented it to James G. King, who owned the land on which the monument had stood. In 1901 the slab was presented to the New York Historical Society.

Upon the crest of the Palisades, about 160 feet above the river and about a rod south of the line of West Forty-fourth street, New York, if projected to the New Jersey shore, is a little pedestal upon which is the red sand-stone boulder upon which Hamilton's head is said to have rested when he fell. The boulder is surmounted by an inferior bust of Hamilton and bears a tablet with the following inscription:

1804–1894.
Upon
this stone
rested at the head of the
Patriot, Soldier,
Statesman and Jurist,
Alexander Hamilton.
after the duel with
Aaron Burr,
fought July 11, 1804.

The duel took place on the bank of the river near this spot, and the stone was moved here when the railroad was built.

Just north of this monument (between the lines of Forty-fourth and Forty-fifth streets, New York, if projected) there was

formerly a ravine through which Mrs. King says an old Indian trail led up to the fresh water brook on the west side of the cliff. The ravine is now closed up by the retaining wall which holds up the street. The fresh water brook, the rudiment of which is still to be seen, was Awiehaken creek, deriving its name from the Indian name for that region, now spelled Weehawken. The name is said to signify "maize land." ("Origin of Certain Place Names in the United States." Gannett.) This creek took its rise near Guttenberg, flowed southward to Union Hill, and thence found its way to the Hudson through a ravine south of King's Point, about half a mile south of the dueling ground. About a third of a mile below the dueling ground there stood a little tavern where occasionally the combatants would breakfast on their way to the ground.

The pistols used in the duel between Burr and Hamilton are owned (or were owned in 1903), by the family of Maj. Richard Church of Rochester, N. Y., formerly of New York city, grandson of John B. Church, who loaned them to Hamilton. They had been used by John B. Church in a duel with Burr upon the same dueling ground, September 2, 1799, when Church clipped a button from Burr's coat and Burr missed Church altogether. On November 23, 1801, the same weapons were used upon the same spot in a duel between Hamilton's son Philip and J. G. Eaker, in which young Hamilton was killed.

FORT LEE PROPERTY OFFERED.

We acknowledge with appreciation the recent offer of our fellow member Dr. James Douglas, of New York city, to give the Society in trust for public use two valuable tracts of land on the summit of the Palisades at Fort Lee. One tract, with a frontage of 200 feet and an average depth of 364 feet, embraces the southern extremity of Fort Lee bluff, extending from the edge of the cliffs overlooking the river back to the public highway leading from the old Fort Lee landing to Hackensack. The other tract is situated on the crest of the Palisades about 1,000

feet further north. It has a frontage of about 300 feet on the river and extends back an average of about 773 feet from the edge of the cliffs to the public highway.

The two plots contain about seven and a half acres. The property is historic as well as picturesque, embracing the sites of some of the fortifications of Fort Lee, which commanded the famous crossing to Fort Washington. It is beautifully situated for a public park, commanding, as it does, a superb view of the river and the distant metropolis, and may be made useful in connection with the Palisades Interstate park which it adjoins. It also suggests itself as a valuable location for a building for the joint use of the patriotic societies. But the plans of the Society concerning its utility have not yet been formulated.

PUBLIC MEETINGS.

Discovery of the North Pole.

The public meetings of the Society during the past year have been chiefly in connection with the Hudson-Fulton Celebration. The dedication of the Fort Tryon tablet, the celebration at Stony Point Reservation, and the historical exhibition at the National Arts Club, are mentioned elsewhere.

The fifteenth annual meeting of the Society was held, by the courtesy of the New York Historical Society, in the auditorium of the New York Historical Society building at No. 170 Central Park West on Wednesday evening January 19, 1910. The address of the evening was delivered by our fellow trustee, Commander Herbert L. Bridgman, upon the subject of "Peary's Progress to the Pole." The propriety of this subject was due to the remarkable achievement by Commander Robert E. Peary, U. S. N., who, on April 6, 1909, reached the North Pole and thus attained the goal for which explorers have been striving for over three centuries. (See note on polar exploration in Appendix B.) Commander Bridgman is secretary of the Peary Arctic Club, and commanded the Peary auxiliary expeditions of 1899 and 1901.

Prefacing his address with a brief statement of the history and work of The Peary Arctic Club, which it was stated has already expended over $300,000 in its work, Mr. Bridgman presented a review and discussion of the results of Commander Peary's twenty years in the Arctic, using the narrative of the cruise of the auxiliary "Erik" in 1901, of which the speaker was in command, as a thread upon which to arrange and display a series of stereopticon illustrations of Arctic life and scenery. Beginning at Sydney, N. S., he traced the route northward, touching at Disco, the capital of Northern Greenland, thence through the Vaigat, studded with icebergs, to Upernavik, through Melville bay to Cape York to junction with Peary and his "Windward" at Etah, after which he gave a full exposition of the work up to that time accomplished by Peary. The delimitation of the Northern Greenland, defining the limits of the island continent and eliminating it as a possible route to the Pole, were described and illustrated with much fullness of detail; as were the conditions of the polar problem at the time of the reorganization of the Peary Arctic Club in 1904 and the determination to build the "Roosevelt" and renew the efforts to attain the Pole. "When the 'Roosevelt' was decided upon," said the speaker, "Peary placed at the disposal of the expedition priceless knowledge and experience from fifteen years of actual work on the ground; knowledge of actual geographical facts, of physical and physiological conditions of the Eskimos, and the vast equipment of knowledge invaluable, imperative and hitherto entirely unavailable." One of the prime factors demonstrated was the importance of active operations from a base as far south as Etah. The long journey to Cape Sheridan or Cape Columbia prior to departure from the land he explained meant depletion, exhaustion of both men and dogs, and, therefore, it was absolutely necessary that a ship able to cover this section of the journey, powerful and seaworthy should be constructed. The "Roosevelt," designed on the best known models for Arctic work, constructed of American materials, and equipped with American engines, abundantly re-

leemed in her actual performance the hopes of her designers, builders and owners.

The final expedition was described from the departure after the inspection by President Roosevelt on board at Oyster Bay, July 7, 1908, thence to Sydney, Cape York, Etah and Cape Sheridan winter quarters. Accounts of the winter hunting in Grant Land and sledging the stores and supplies along the ice foot, ninety miles to Cape Columbia, followed, and then the graphic story of Peary's own pictures and notes from Cape Columbia, 413 miles to the Pole on April 6, 1909, was given, together with a brief statement of the actual work and conditions in the polar pack and of the return to the land and thence to the ship.

A facsimile of President Roosevelt's letter from his camp near the foot of Mount Kenia, East Africa, declaring Commander Peary's attainment of the Pole to be the great feat of our generation: "We are all Captain Peary's debtors — all of us — who belong to civilized mankind" with a reminiscence of the departure of the "Erik" August 26, 1901, from Peary's temporary camp at Herschel bay, bringing home Mrs. Peary and Marie Ahnighito Peary, after wintering at Cape Sabine, and more than a year in the Arctic, concluded the address.

THE HUDSON-FULTON CELEBRATION.

Participation by the Society.

From September 25 to October 9, 1909, the State of New York commemorated with an elaborate celebration the three hundredth anniversary of the exploration of the Hudson river by Henry Hudson in 1609 and the one hundredth anniversary of the first successful application of steam to navigation upon that river by Robert Fulton in 1807. The celebration was conducted officially in behalf of the State and the city of New York by the Hudson-Fulton Celebration Commission, which was incorporated by chapter 325 of the Laws of 1906 of the State of New York. Our Society as an organization and through its officers and members

as individuals was one of the most active influences in carrying out the purposes of the celebration on a high plane. The following named officers, trustees and members of the Society were officers, trustees and members of the Commission:

Edward D. Adams, LL. D., Vice-Chairman of Medals Committee.

Louis A. Ames, Vice-Chairman of Badges, Flag and Poster Committee.

George C. Batcheller, LL. D., Vice-Chairman of Reception Committee.

Cornelius K. G. Billings, donor of the Fort Tryon Monument.

Hon. Joseph H. Choate, Chairman of Invitations Committee.

Hon. Robert W. de Forest, Chairman of Sub-Committee on Art Exhibits.

James Douglas, LL. D., Chairman of Hudson Monument Committee.

Theodore Fitch, Chairman of Nominations Committee.

Edward Hagaman Hall, L. H. D., Assistant Secretary of the Commission.

Hon. Warren Higley, Chairman of Dedications Committee.

Samuel V. Hoffman, Chairman of Historical Committee.

Archer M. Huntington, Chairman pro tem. of Medal Committee.

George F. Kunz, Ph. D., Sc. D., Chairman of Sub-Committee on Historical and Scientific Exhibits.

Henry M. Leipziger, Ph. D., Chairman of Lectures Committee.

J. Pierpont Morgan, LL. D., Chairman of Art and Historical Exhibits Committee.

William C. Muschenheim, projector of the Hudson Monument.

Eben E. Olcott, Chairman of Clermont Committee.

John E. Parsons, Chairman of Inwood Hill Park Committee.

Hon. Samuel Parsons, Chairman of Children's Festivals Committee.

Gordon H. Peck, Chairman of Stony Point Committee.

Hon. N. Taylor Phillips, Chairman of Auditing Committee.

Hon. C. A. Pugsley, Chairman of Verplanck's Point Committee.

Herman Ridder, Acting President of the Commission.

Col. Henry W. Sackett, Secretary of the Commission.

Isaac N. Seligman, Treasurer of the Commission.

Hon. Frederick W. Seward, Chairman of Plan and Scope Committee.

Francis Lynde Stetson, Chairman of Banquet Committee.

Gen. James Grant Wilson, Chairman of Official Literary Exercises Committee.

Louis Windmuller, Chairman of Queens Borough Committee.

Gen. Stewart L. Woodford, President of the Commission.

And the following members of committees:

John D. Archbold.
Col. John Jacob Astor.
Hon. Theo. M. Banta.
August Belmont.
James Gordon Bennett.
Emil L. Boas.
George C. Boldt.
Reginald P. Bolton.
George S. Bowdoin.
Hon. Thomas W. Bradley.
Com. Herbert L. Bridgman.
Wm. Lanman Bull.
Henry K. Bush-Brown.
Hon. Jacob A. Cantor.
Herbert Carl.
Andrew Carnegie.
Prof. J. M. K. Cattell.
Hon. A. T. Clearwater.
Charles A. Coffin.
Frederick J. Collier.
Hon. John D. Crimmins.
James de la Montanye.
Hon. Chauncey M. Depew.
Cleveland H. Dodge.
L. F. Dommerich.
Hon. Charles M. Dow.
Capt. C. A. Du Bois.
Hon. J. Sloat Fassett.
Stuyvesant Fish.
Winchester Fitch.
Hon. Charles S. Francis.
Frank L. Frugone.
Hon. Theodore P. Gilman.
George J. Gould.
Rt. Rev. David H. Greer, D. D.
Henry E. Gregory.
Hon. Henry E. Howland.
Gen. Thomas H. Hubbard.
Joseph Keppler.
Frederick S. Lamb.
Hon. Thomas H. Lee.
Hon. Wm. P. Letchworth.
Hon. Clarence Lexow.
William A. Marble.
Rev. H. Pereira Mendes, D. D.
Frank D. Millet.
Gen. A. L. Mills, U. S. A.
Hon. Levi P. Morton.
Charles H. Niehaus.
Prof. Henry Fairfield Osborn.
William Church Osborn.
Edward L. Partridge, M. D.
Hon. George W. Perkins.
Hon. Thomas R. Proctor.
James B. Rathbone.
John D. Rockefeller.
Hon. Elihu Root.
Hon. Arthur P. Rose.
Mrs. Russell Sage.
Jacob H. Schiff.
Hon. Edward M. Shepard.
James Speyer.
Hon. Louis Stern.
Stevenson Taylor.
Henry R. Towne.
Hon. Spencer Trask.

Hon. Arthur C. Tucker.
Albert Ulmann.
Warner Van Norden.
Hon. J. Du Pratt White.
Hon. William R. Willcox.
Hon. Egerton L. Winthrop, Jr.
Robert B. Woodward.
August Zinsser.

Hudson-Fulton Memorials and Exhibits.

Our Society was particularly identified with the following features of the celebration:

Fort Tryon Monument: Through the generosity of Mr. Cornelius K. G. Billings, the American Scenic and Historic Preservation Society erected and dedicated, during the Hudson-Fulton Celebration, a monumental tablet to mark the site of Fort Tryon on Manhattan island. The chairman of our committee in charge of the arrangements was Mr. Reginald Pelham Bolton. A full account of the proceedings at the dedication is given in Appendix C to this report.

Historical Exhibition: In co-operation with the National Arts Club, the Society held a notable exhibition in the galleries of the National Arts Club illustrative of three centuries of New York history. In the arrangement of this instructive exhibition this Society was represented by Mr. Bolton.

Palisades Park: The Palisades Interstate park, the law creating which in the State of New York was secured by this Society and toward the acquisition of which the Society's honorary president gave $122,500, was officially dedicated. In the dedication of the park, this Society was officially represented among the speakers by its president, Dr. George F. Kunz. Hon. George W. Perkins, a vice-president of the Society, delivered an address in his capacity of President of the Palisades Interstate Park Commission. In the absence of Gen. Stewart L. Woodford, another member of the Society and president of the Hudson-Fulton Celebration Commission, Dr. Kunz delivered an address in the name of the Commission. An account of these proceedings is given in Appendix F.

Stony Point Reservation: On Stony Point Battlefield State reservation on the Hudson river, which was established by the

efforts of this Society and which is in its official custody, a memorial arch was dedicated by the Daughters of the Revolution and impressive exercises held with the co-operation of this Society. For a full account of the dedication, see Appendix D.

Stony Brook Exercises: Under the auspices of this Society, elaborate exercises were held at Stony Brook, the "Cradle of Staten Island." Our representative in charge of these exercises was Mr. Ira K. Morris.

Sites and Inscriptions: The Society also officially verified the sites and inscriptions of the memorials mentioned under the following heading which were dedicated during the Celebration.

SITES AND INSCRIPTIONS.

In pursuance of its long established policy of co-operation, the Society during the past year has officially verified the location of several historical sites and confirmed the accuracy of the corresponding monumental inscriptions, for other societies as well as for itself. The sites and inscriptions thus verified are as follows:

Burr-Hamilton Dueling Ground, Weehawken, N. J., see page 36, ante.

Fort Tryon, New York city, see Appendix C.

Hudson Monument, New York city. The site of this monument is on Spuyten Duyvil hill at the northern end of the northern approach to the projected Hudson Memorial bridge across Spuyten Duyvil creek. It is a few hundred feet southeast of the site of Fort Number One of the Revolution, now occupied by the residence of Mr. William C. Muschenheim. It is also in close proximity to the site of the ancient Indian village of Nipnicksen, the inhabitants of which, it is believed, attacked the Half Moon on October 2, 1609, in reprisal for injuries by the European explorers. Ground for the monument was broken July 5, 1909, and the corner stone was laid Monday, September 27, 1909. The inscription for the monument has not yet been determined; but will probably embody the sentiment which was expressed when the ground was broken and which is engraved upon the four silver spades used in that ceremony, to the effect that four

sods were turned, each "in the name of Henry Hudson and one of the Four Peoples who successively occupied the soil: The Indians who bade him welcome; the Dutch under whose auspices he sailed; the English from whom he sprang; and the American People who erected upon the spot fortifications in their brave struggle for national independence."

City Wall Bastion, New York city: For the Society of Colonial Wars in the State of New York, this Society approved of the following inscription for a very artistic tablet erected on the building at No. 48 Wall street, and dedicated during the Hudson-Fulton Celebration in 1909:

Here stood a bastion of the Wall which
Between 1653 and 1699
extended from the
East River along the
line of the present
Wall Street and
thence Westerly to
the North or
Hudson's River.

This table was erected by the Society
of Colonial Wars in the State of New York
on the occasion of the Hudson-Fulton
Celebration and unveiled the 29th Septr. MCMIX.

Fort Amsterdam, New York city: For the New York State Society of the Order of the Founders and Patriots of America, we verified the following inscription for a bronze tablet erected in the vestibule of the United States custom house at the foot of Bowling Green, and dedicated September 29, 1909. The first part of the inscription is embraced by an outline of the fort:

This outline of the fort is made
on a scale of 12.5 feet to the
inch from "a plan of Fort George
in the city of New York
made at the request of the
Honourable John Cruger, Esquire
and the rest of the committee
appointed to fix on a suitable
place for building a
government house made this
12th April 1774 by Gerard Bancker."

On this site
Fort Amsterdam was erected 1626
and its successor
Fort George was demolished 1790
To commemorate the exploration
of the Hudson River
by Henry Hudson in September 1609
the founding of New Amsterdam
May 4 1626
and the establishment of
American Independence 1775–1783
this tablet is placed by
the New York Society of the Order of
the Founders and Patriots of America
September 1909

Washington Heights, First Line of Defense, New York city: For the Washington Heights Chapter, Daughters of the American Revolution, we verified the following inscription for a tablet placed upon a boulder at One Hundred and Forty-seventh street and Broadway and dedicated September 29, 1909:

This stone marks the position
of
"The First Line of Defense"
Constructed across these Heights
and
Bravely defended by
the American Army, 1776
Erected by the Washington Heights Chapter,
Daughters of the American Revolution,
October, 1909.

Washington Heights, Third Line of Defense, New York city: For the Mary Washington Colonial Chapter, Daughters of the American Revolution, we verified the following inscription for a tablet which was erected at One Hundred and Fifty-ninth street and Broadway and was dedicated November 16, 1909:

This Tablet Marks the Position of
"The Third Line of Defense"
and Commemorates the Bravery of
Colonel Robert Magaw
and his three thousand men
at the Battle of Fort Washington
16 November 1776.
Erected by
The Mary Washington Colonial Chapter D. A. R.
16 November 1909.

VERRAZZANO AND HUDSON.

In view of the increased interest taken in all that pertains to the discovery of the Hudson river, as the result of the Hudson-Fulton Celebration last year, and the important bearing of the explorations of the early navigators upon the history of the State of New York, we have felt warranted in devoting an unusual proportion of this annual report to that subject.

In the paper entitled "Giovanni da Verrazzano and His Discoveries in North America" which we have the honor to transmit herewith (Appendix A), we are privileged to make public for the first time in the English language a document of exceptional value with respect to the history of both our State and the United States. The codex recently discovered in the library of Count Giulio Macchi di Cellere of Rome, Italy, and which, by Count di Cellere's kind permission, we present herewith in the original Italian text as well as in an English translation, appears to confirm beyond doubt the title of Verrazzano as the first European known to have visited the harbor of New York and to have described the aboriginal inhabitants of this State. And the value of this document is greatly enhanced by the illuminating discussion by Prof. Alessandro Bacchiani which accompanies it. To Count di Cellere and Professor Bacchiani the State is under a large debt of gratitude for their contribution to its historical literature.

Following the Verrazzano document, we also transmit herewith a paper on Henry Hudson and the exploration of the Hudson

river (Appendix B) embodying the results of careful original research.

PUBLIC PARKS IN NEW YORK CITY.

Central Park — Public Forums Opposed.

At the annual meeting of the Society held on January 19, 1910, the following preamble and resolution were adopted:

Whereas, The Commissioner of Parks for the boroughs of Manhattan and Richmond of the city of New York is reported in the New York Evening Sun of January 13, 1910, to be in favor of a commodious public park definitely set aside for public speaking, where strikers, woman suffragists, single-tax advocates, and propagandists of other political and social ideas may meet for the discussion of their causes, and to which, if necessary, "each speaker can bring his own rostrum in the form of the humble soap-box;" and

Whereas, The interview quotes the Park Commissioner as saying that "Everything seems to point to Central Park as the most suitable site."

Resolved, That we hereby record our opinion that the policy which, from its beginning, has reserved Central Park for the quiet enjoyment of our citizens, free from the turmoil of the surrounding city and the distractions of organized gatherings, should be continued, and that the gathering of assemblages in the park for the purpose of advocating political, social or industrial ideas and the discussion of questions upon which the people entertain divergent opinions is unsuitable to a place devoted to rest and recreation, is foreign to the objects for which Central Park was created and should not be permitted therein.

Just a month after the public announcement of the proposition for public forums in Central park, that is to say, on February 14, 1910, it was announced in the *New York Times* and other papers that Messrs. Milton Aborn and Sargent Aborn, representating the Aborn Opera Companies, had proposed to Mayor Gaynor to erect in Central park, without expense to the city, an opera house with a capacity of 5,000 seats, in which the projectors offered to give free opera "for the sake of the ad-

vertisement which it would give us in our companies outside of New York." At last accounts this application had not been granted, but it is cited here as an illustration of the great variety of enterprises which are constantly being put forward and which have for their object the erection of structures of one sort or another in the public parks.

City Hall Park — Enlarged Courthouse Opposed.

Upon grounds similar to those upon which we opposed the erection of the Academy of Design building in Central park last year and the erection of an opera-house this year, we have recently felt constrained to oppose the building of a new and enlarged courthouse in City Hall park.

The situation is as follows: City Hall park, which fifty years ago contained ten and three-quarter acres before the post-office site was sold, now contains about eight and one-half acres. This space contains the city hall, the county courthouse at its rear facing Chambers street; the municipal courthouse east of the latter; the kiosks of the subway; the superstructures of the underground public conveniences; a fountain and the statute of Nathan Hale.

The courthouse board now proposes to erect on the site of the county courthouse an enormous structure extending almost the entire distance along Chambers street from Broadway to Center street. If such a project be carried into execution,

It will greatly reduce the open space of what has been the city common for over two centuries;

It will encroach further than heretofore upon land made sacred by venerated traditions of every period of our city's history;

It will overshadow the city hall which is one of the architectural treasures of the city;

It will prevent the symmetrical architectural development of a civic center around City Hall park commensurate with the dignity of the metropolis of the New World and similar to those of other large cities in America and Europe;

It will increase the congestion of traffic at a point already greatly congested;

It will impair the city's financial credit by a confession of past improvidence and by proclaiming that the city's financial resources are at last so exhausted that it cannot afford to buy a building site and must, therefore, consume its park space — reserved for future generations — in order to house its courts;

And it will establish a precedent for still further encroachments in this and other public parks, the ultimate effect of which cannot be foreseen.

It is apparent that a crisis has arrived in which every public-spirited citizen, as he values the city's parks, should rally to their defense.

For seven years, successive courthouse commissions have been seeking a site for a larger building, considering at various times sites in City Hall park, Battery park, Washington square and Union square. Last year, when the courthouse commission appeared to favor placing the courthouse in Washington square, this Society at its annual meeting, January 21, 1909, adopted a resolution declaring "that in the opinion of this Society, it is against the interest of the city and contrary to its settled policy and the sentiment of the people that any part of a public park should be used for a courthouse or other municipal building."

The Washington square site was abandoned and this year the courthouse board secured an amendment to the law under which it is acting permitting it to locate the building in City Hall park. This plan has aroused the most earnest protest from the public. Popular sentiment on this subject was unmistakably manifested at the hearing before the Board of Estimate and Apportionment in the City Hall on March 18, 1910, when the chamber was crowded almost to suffocation and when the limits of the hearing did not suffice to allow all the protestants to speak. At the present moment, the courthouse board is considering alternative plans and will soon make final recommendations to the Board of Estimate and Apportionment, the final arbiters.

The objections of this Society are based on the ground that the appropriation of public park space for a building is a vio-

lation of the principle upon which our public parks are created, is unnecessary in the present instance and is contrary to public policy. For twenty-two years persistent efforts have been made to encroach upon City Hall park for a public building and for twenty-two years public opinion has successfully resisted the effort. In 1838 the Legislature constituted a commission, "To select and locate a site, conveniently situated, in the neighborhood of the County Courthouse Building in said City, but *not in the City Hall Park,*" for a municipal building. In 1889 the Legislature authorized this commission to locate a site within the City Hall park, but public sentiment revolted against it and in 1890 the Legislature again imposed upon the commission the prohibition "*but not in City Hall Park.*" In 1892 the Legislature again authorized the selection of a site for a municipal building in City Hall park and the intense indignation which prevailed in that year and in 1894 compelled *the abandonment of the project.* Public sentiment is no less sensitive upon this question to-day than it was then. In fact the agitation last year which prevented the location of the Academy of Design on the site of the Arsenal building in Central park demonstrates how jealous the people are of any diminution of their park area.

As the city finally found means to erect its municipal building on property which was not a public park, we believe that a place can be found for the new courthouse without going into a public park.

Within a period of thirty-five years and forty-three years, respectively, both the post-office and Federal courthouse at the south end of the park and the county courthouse at the north end have been outgrown and there is every probability that the new county courthouse proposed for City Hall park would be outgrown in an equal period and the city eventually compelled to go elsewhere for a larger site or encroach still further upon the park. It would, therefore, seem to be the policy of wisdom to look at least fifty years ahead and provide for future needs by locating the new courthouse, not only where it will not encroach upon present park space, but also where it will have room for future expansion.

The growth of population, the increase in the holding capacity of the buildings and the augmented congestion at and around City Hall park counsel the removal of all buildings from the park except the City Hall itself, and the recovery of the area occupied by the post-office, rather than the establishment of the principle that the city can use up its park areas for building lots.

The historical sketch of City Hall park and its buildings in Appendix E will serve to indicate the deep interest attaching to this place and how deserving it is of preservation and restoration.

Washington's Headquarters Park.

Under date of October 20, 1909, we had the honor to receive the following communication from the Hon. Henry Smith, commisioner of parks for the boroughs of Manhattan and Richmond:

Edward Hagaman Hall, *Esqre., Secty., American Scenic and Historic Preservation Society, Tribune Building, N. Y. City:*

Dear Sir.— For some time there has been a doubt in this Department as to the correctness of the date on the key-stone in the Washington's Headquarters (Jumel Mansion), 160th to 162d streets, Edgecombe Road and the Jumel Terrace.

Recent research has brought to light certain documents that seem to prove that the house was built in 1763, and not in 1758. There are also other historical inaccuracies in consequence of the supposed error of the date, and before any corrections can be made, it is desired that your Society pass upon the historical accuracy of the date in the key-stone, whether it should be 1758 or 1763, after which this Department will correct the other inaccuracies referred to, and submit the whole to your Society for approval.

Mr. W. H. Shelton, the Curator of Jumel Mansion, will, on request, furnish you the data he has collected in connection with this matter.

Yours truly,
Henry Smith,
Commissioner of Parks,
Boroughs of Manhattan and Richmond.

The following month we communicated to Commissioner Smith the views of this Society to the effect that the date should not be earlier than 1763. Subsequent investigation, however, indicated that the date should be not earlier than 1765. The traditional date of 1758, heretofore used by historians, is the date of the marriage of Roger Morris and Mary Philipse. It was long ago stated in Riker's History of Harlem that the land upon which the mansion in question was erected was bought by Morris from James Carrol, but it has only recently been ascertained, through a copy of an indenture, that Carrol, who acquired the property from James Dyckman and others, did not come into ownership until January 29, 1763. The conveyance of the property by the Dyckman heirs to James Carrol was not recorded until June 19, 1764. In May and June, 1765, Carrol advertised the property for sale and although there is no actual record of the sale, it seems probable that it was conveyed to Morris in the summer of 1765, and that soon thereafter the erection of the mansion was begun. Between the date of his marriage and 1765, Lieut.-Col. Morris's military service had kept him away from New York most of the time.

Earlier in 1909, Commissioner Smith requested the representative of this Society to serve on a committee to make recommendations concerning the further improvement of this historic building. Under date of December 30, 1909, the committee presented the following report to Commissioner Smith:

December 30, 1909.

The Hon. Henry Smith, *Commissioner of Parks, The Arsenal, Central Park, New York City:*

Dear Sir.— The undersigned Committee, appointed by you to report upon the work of restoration of Washington's Headquarters thus far performed and to make recommendations as to the future improvements which may be desirable, have the honor to present to you their recommendations herewith.

The building in question was erected, as we believe from the latest researches, in the year 1763 by Col. Roger Morris, and be-

cause of his ownership and the subsequent ownership of Stephen Jumel, it is also known as the Morris Mansion and Jumel Mansion. It stands on a sightly eminence, 182 feet above the Harlem river, within grounds comprising 67,391 square feet, bounded by One Hundred and Sixty-second street, Edgecombe road, One Hundred and Sixtieth street and Jumel terrace, in the borough of Manhattan. The city took title to this property for the purposes of a public park pursuant to resolution of the Board of Estimate and Apportionment on October 20, 1903, and the building was formally opened to the public on December 28, 1903. The price paid for the building and land was $235,000.

This property was acquired by the city in deference to the strong public sentiment which sought its preservation because it was Washington's Headquarters during a portion of the momentous year of 1776 and because it is an interesting specimen of Colonial architecture. During the past six years, the grounds have been improved and the building repaired by the Park Department, and, with the co-operation of a public-spirited body of women organized under the title of "The Washington's Headquarters Association, founded by the Daughters of the American Revolution," some changes have been made in the interior and many interesting and instructive exhibits have been placed therein. The building is visited by about 20,000 persons a year, and there can be no doubt but that the public interest taken in the historic building and its future possibilities amply justify the course of the municipal authorities in acquiring and preserving the property as a public monument.

In letters dated April 2, July 1, and July 16, 1909, Mr. W. H. Shelton, the Curator of Washington's Headquarters, expressed to you the view that the house was still in an unsatisfactory condition and suggested to you that a committee, consisting of the President of the Art Commission of the city of New York, the Secretary of the American Scenic and Historic Preservation Society and a professional architect having particular knowledge of Colonial architecture, be appointed by you to make recommendations looking to the complete restoration of the building to the condition in which it was in Washington's time. Accordingly, you requested the undersigned to examine the building and to report to you "on the work of restoration of the interior of the building, which was undertaken about March 1, 1906, and completed about May 1, 1906, and to further report recommendations as to the present requirements to fittingly restore the interior and exterior

of the house to as near a true representation of the time it was occupied by General Washington as can be done at this time, together with an estimate of the cost of the work."

Pursuant to your request, your Committee met in the Headquarters on Friday afternoon, November 5th, and with the Curator made a careful survey of the building. Subsequently, the architect member of the Committee made a more detailed examination, with results to be stated hereinafter.

With reference, first, to the building generally: The old house possesses a peculiar interest architecturally, in addition to its highly prized historical associations. It is a good specimen of the style of the Georgian period, a style which originated in the Italian Renaissance, was later transplanted to England, and was afterward brought to this country in the early part of the eighteenth century. While lacking some of the finer details which oftentimes characterized the style, yet the house possesses so much of the classical element with artistic adaptation that it is well worthy of preservation and more careful restoration as one of the now rare specimens of that interesting Colonial type. In our examination of the building, we have come to the opinion that much remains to be done to develop all of its possibilities, both in the way of physical restoration and in the way of appropriate furnishing. We believe that there are in the city articles of furniture and historic objects, valuable both on account of their Colonial character and their direct association with this building, which could be obtained under favoring conditions and which, together with the physical changes which we recommend, would give the building, inside and out, as nearly the appearance which it bore in Washington's time as is practicable.

With reference to the detailed improvements, we have the honor to submit herewith the changes suggested by our architect member and approved by the committee, together with an estimate of the cost, and we very respectfully recommend that the changes be made:

Washington Office and Garret:

Restore dormer window over east window.

Restore garret floor.

Remove balcony railing.

Continue low side walls of garret over new floor.

(This was a plastered garret treated like the third-story front, with small square side doors to space under eaves.)

Restore ceiling to office room.
Take out brass fireplace.
Replace stone center of fireplace with brick.
Remove steam coils.

Council Chamber:

Reproduce the original green colonial paper.
Line with buckram and hang in place of yellow satin.
Hang the paper from cornice.
Plain ceiling in place of present one.

Remove iron lining, marble facing and slate bed from fireplaces as restored in 1906.

Look for original hearths under modern marble in Lafayette and Burr rooms and in Washington bedroom.

Guard Room:

Restore to the fireplace heavy iron plates to be found in cellar.
Restore cupboard in wall.

Remove gas fixtures from all rooms except office, closet, kitchen and one bedroom in third story.

All floors to be cleaned of paint and polished.

Steam heating plant to be replaced with hot air furnace or steam coils concealed under window casings.

Floor in cellar kitchen, southeast room and hall to be laid with wide boards on concrete or to be brick pavement, or stone flagging — to be determined later.

All overhead pipes and boxes to be removed — (so that such rooms may be used for exhibition purposes).

Dining room:

To be repapered in plain green (color of a jonquil leaf) with gold band three fingers wide below cornice.

Small brass disc with raised lion's head and ring, to be reproduced after sample in possession of Mrs. Caryl, and restored to all inside shutters.

Restore iron bars.

Externally:

Replace balcony rail under porch and railing on roof with colonial railing.

Remove arbor built against side of house.

Third floor — still to be considered.

Restore front door.

Electric light in cellar and third floor.

Indirect heat throughout except two attic rooms and office.

General:	
Five new mantels.	
New blinds or shutters.	
Cutting and repairing for remodeled heating.	
Repapering exclusive of dining-room and council-room.	
Painting and repairing.	
Plumbing and drainage.	
	$24,028 00
Allowance for contingencies	5,000 00
Architect's fee:	
Survey of building	150 00
Commission — 10 per cent	2,902 00
Total	$32,080 00

If funds can be found for the purpose, your Committee approves of the plan suggested by Mr. Shelton for the acquisition of the necessary property, formerly in the original door yard, to provide an approach or parkway 100 feet wide, from St. Nicholas avenue to present grounds, and sufficient land adjacent on either side to make it possible to restore the original Colonial fence of Washington's time and as sites for any buildings which it may be desirable hereafter to erect.

Respectfully submitted,
Robert W. de Forest,
Edward Hagaman Hall,
Charles A. Platt,
Committee.

Bronx Borough Parks — Historical Buildings.

Under date of January 17, 1910, the Hon. Thomas J. Higgins, commissioner of parks for the borough of the Bronx, New York city, requested this Society to furnish him with historical data concerning the old buildings within his jurisdiction in order that he might use the information through such media as were at his command for increasing popular interest in the buildings. On February 28, 1910, we had the honor to communicate to him the following notes relating to Bronx park buildings kindly furnished to us by Mr. Randall Comfort.

Bronx Park.

Lorillard Mansion: Erected by Pierre Lorillard about the middle of the last century for his residence, it still stands on a high plateau overlooking the Bronx, shaded by noble forest trees and girt about by grassy lawns. Through the courtesy of a former park commissioner it is now occupied by the Bronx Society of Arts and Sciences and is thrown open to the public every afternoon as a museum. The two old Lorillard parlors have been thrown into one, and, together with the great dining hall, contain a most varied and interesting collection of Indian, Colonial and Revolutionary relics, while on the walls are historical photographs of The Bronx and numerous rare prints. In addition the visitor will find a reference library at his disposal.

Almost within a stone's throw of the splendid Lorillard mansion lies Bronx park's well-known old-fashioned flower garden, the Mecca of so many modern pilgrims. In early days this was old Pierre Lorillard's famous "Acre of Roses," where the imported French plants were so carefully nourished in order to play their important part of imparting that odor to the Lorillard snuff that has made it world-famous. At the northern end was the mysterious "Maze," planted so many years ago by old Pierre for the amusement of his children and those who were fortunate enough to be included in their merry sports.

Lorillard Snuff Mill: Just southwest of the "Acre of Roses," the solid stone snuff mill, the creator of the vast Lorillard fortunes, rises, dark and massive, on the very river's brink. No longer does one hear the whirr of the wheels or smell the stringent odor of fresh tobacco or the fumes of the snuff. No longer does the visitor float in dainty boats on the picturesque mill race that skirted the east shore of the Bronx and conveyed to the sturdy mill wheels the dark waters from the river above. A splendid driveway, hard and level as a floor, has taken the place of the once harnessed river, leaving it free to dash and rage over the falls and rush along unbridled through the deep gorge, past the grim walls of the old snuff mill.

When Pierre Lorillard constructed the embankment that diverted part of the Bronx river into his mill race, he certainly "builded better than he knew." To-day this miniature Niagara is as picturesque and as popular as ever, and the cynosure of myriads of artists and photographers.

In dry weather, one can easily cross the river below the falls by stepping from stone to stone. This recalls vividly the report sent over to England by the British officers: "We are also reminded of the orders issued from the English Home Office: 'Have your fleet proceed at once up the Bronx and attack the Yankee gunboats in hiding above!'" Query — How far did they get?

No longer is the exclusion of the public from the Lorillard domain enforced by the loaded rifles of trusty watchers. "Do artists and poets invade thy once sacred precincts, oh, Bronx, Long Suffering? Better seek to count the leaves that fall and are blown on the floor of the grand Hemlock Grove, or the bubbles that sparkle and break beneath the falls, than try to answer such a question."

Claremont Park.

Zborowski Mansion: At present the headquarters of the Bronx park department, and the office of the commissioner. A stately structure of light stone, erected in 1859 by the late Martin Zborowski and occupying the most commanding site of his beautiful estate. It is believed to be on the location of an earlier building completed in 1676. The two sets of dates, 1676 and 1859, are boldly outlined on the outside walls of the mansion.

A short distance behind the Zborowski mansion was the notorious Black Swamp, or bottomless Pit, a spot dreaded by all since the days of the Indians, and which for years sucked down to death their cattle as well as Mr. Zborowski's blooded stock. After defying for years the strenuous efforts on the part of the contractors to fill it up, it only yielded after 100,000 tons of earth and stone had been dumped into its depths.

The tradition among the Zborowskis that because of a curse no male member of the family would die in his bed seems to have been literally fulfilled. Martin Zborowski died in his chair, stricken with paralysis; Elliot was killed by a New Haven train in sight of the mansion itself; Francis was drowned near Williamsbridge; Max met death by a fall from a horse, and Count Elliot Zborowski was killed in 1903 by being hurled from an automobile near Nice, France.

Pelham Bay Park.

Bartow Mansion: This beautiful and extensive stone mansion, displaying such a striking Grecian front of native cut masonry, is a short distance northeast of the Bartow station of the New Haven road, and perhaps a mile south of Hunter's island. Standing on what was the great Pell estate, it is but a stone's throw east of the fabled site of the ancient Pell manor house, where the manor courts were held and the tenants of Lord Pell would assemble, in the early days. The grizzled veteran of the forest, which up to a year ago stood on the immense grassy lawn in front of the Bartow mansion, was pointed out as the great tree under whose branches Lord Pell signed the celebrated treaty with the Indian sachems, on November 14, 1654 — the noted Pell Treaty oak.

Closer to the water's edge, a tiny cemetery proclaims from the quaint inscriptions on its well worn tombstones that it is the last resting-place of several members of the Pell family.

For a number of summers the courtesy of the Bronx park commissioner has enabled the Crippled Children's Association to have its little members bask in the warm sun and enjoy the cooling and refreshing breezes that circle around the old Bartow mansion.

De Lancey Mansion: Almost opposite the twin gate posts of Hunter's island is "Greystones," the former splendid residence of William H. De Lancey. On the walls used to hang the original portrait of the Hon. Caleb Heathcote, lord of the manor of

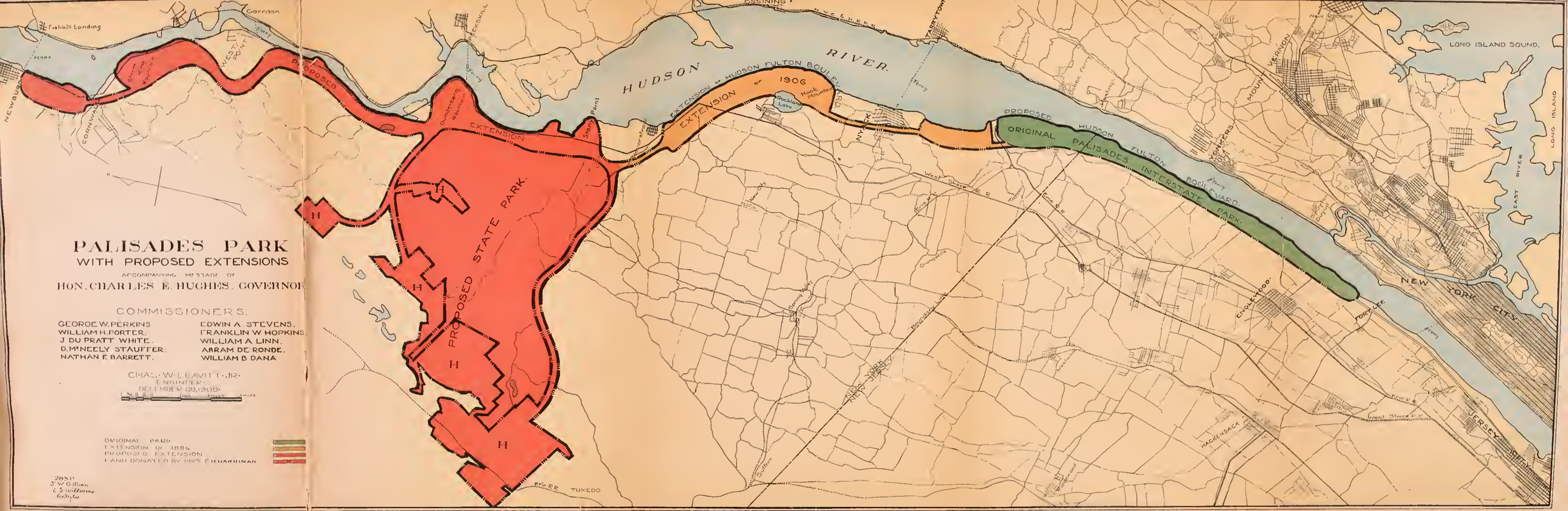
Scarsdale. This native stone building has been known as Hunter's island inn, and is situated at a sharp curve in the road that has proved such a thorn in the flesh to scorching automobilists.

Hunter Mansion: This elaborate stone residence, lately used as an inn, stands adjoining the athletic field, not far from the picturesque summer house by the shore, commanding a fine view of City island across Pelham bay. Built in the fifties of the last century, it was styled "Annie's Wood" by the late owner, E. Des Brosses Hunter, son of John Hunter of Hunter's island. It stands on part of the extensive estate of the Bayards, those well-known early settlers who came from France to escape the Huguenot persecution. One of the three brothers who came as immigrants was Balthazar Bayard, a Huguenot clergyman, who, accounts tell us, was shipped from Rochelle, France, in a hogshead.

Hunter's Island Mansion: Standing like a massive stone sentinel on the central crest of Hunter's island, in the very northeastern corner of Pelham Bay park, this splendid old time structure occupies the grandest location for a private residence along the whole length of Long Island sound. Any one who has seen its striking Ionic colonnade, or the magnificent panorama of sea and land to be obtained from the upper windows, cannot but be lost in admiration of Mr. Hunter's good taste in the selection of a home.

History tells us that the Hunter family were related to that of Gen. Philip Schuyler, of Revolutionary fame. Certain it is that the Schuyler mansion stood not so very far removed from that of Mr. Hunter, its site being about a mile to the southwest, back of the present Bartow station, and close to the banks of the Hutchinson river, named after that noted early settler, Anne Hutchinson, who braved the dangers of the primeval forest for a home in Pelham Bay park where she could enjoy religious freedom.

At one time the Hunter mansion was the residence of Mr. Henderson, a southern gentleman, once a surgeon in the British


PALISADES PARK
WITH PROPOSED EXTENSIONS
ACCOMPANYING MESSAGE OF
HON. CHARLES E. HUGHES, GOVERNOR
COMMISSIONERS.
GEORGE W. PERKINS
WILLIAM H. PORTER.
J. DU PRATT WHITE.
D. McNEELY STAUFFER.
NATHAN F. BARRETT.
EDWIN A. STEVENS.
FRANKLIN W. HOPKINS.
WILLIAM A. LINN.
ABRAM DE RONDE.
WILLIAM B. DANA
CHAS. W. LEAVITT, JR.
ENGINEER.
DECEMBER 29, 1909.
ORIGINAL PARK
EXTENSION OF 1906
PROPOSED EXTENSION
LAND DONATED BY MRS. E. H. HARRIMAN
HUDSON RIVER.
LONG ISLAND SOUND.
PROPOSED EXTENSION
EXTENSION OF 1906
HUDSON FULTON BOULEVARD
PROPOSED STATE PARK.
ORIGINAL PALISADES INTERSTATE PARK.
NEW YORK CITY
JERSEY CITY
Fishkill Landing
Garrison
WEST POINT
Storm King Mountain
Dunderberg Mountain
Stony Point
Haverstraw
Ossining
Tarrytown
Rockland Lake
Hook Mountain
Nyack
Piermont
Yonkers
Mount Vernon
New Rochelle
Long Island
East River
Englewood
Fort Lee
Hackensack
Tuxedo
Sloatsburg
Suffern
Orangeburg
Spring Valley
Bergen Hill
West Shore R.R.
Erie R.R.
NEW YORK
NEW JERSEY

army, having seen service in distant Asia. Under his ownership the mansion was a sumptuous bachelor's hall, and the "Lonely Lord" is found to have made his homestead the palatial home of the finest private art gallery of its time in the whole United States, it having been filled to overflowing with the choicest treasures of the Italian masters.

For a number of years past, the Hunter mansion has been the summer home of the "Little Mothers' Association," and a more beautiful charity cannot be imagined than allowing these hard worked children of the poor to have the enjoyments that this island affords.

Lorillard Mansion: Now known as the Tallapoosa Club House, this once splendid mansion was erected by Pierre Lorillard, Jr., and is a typical example of the grand array of country residences that once were the pride of lower Westchester county. Its location just this side of Pelham bridge, commanding a glorious view of the waters of the sound, whose waves break almost at its very doors, cannot be excelled for romantic beauty.

Marshall Mansion: Opposite the upper end of City island, and surrounded by a forest of its own, the white Marshall mansion rears its stately walls, and presents in its handsome Grecian columns a most striking and picturesque appearance. The name, "Hawkwood," still clings to the place, and it will not be long before the snail-like horse car of a by-gone age will give place to the modern monorail system now under construction, whose dazzling cars are expected to fly past the Marshall mansion at 135 miles an hour.

Morris Mansion: A few steps west of the Marshall mansion described above, "Longwood," A. Newbold Norris's late home, occupies one of the finest locations on Pelham neck, with a beautiful view to the south. Not far from this is the old shingle-sided Bowne homestead, near which, according to one account, was the old Pell residence, so located from the fish hawks' nests which Mr. Pell felt sure would bring good luck to him and his family.

Ogden Mansion: In this remote yet romantic nook, on the easterly of the tiny Twin islands, only reached by a winding road-

way over the hills of Hunter's island, is the magnificent stone Ogden mansion, for a while the home of one of Jacob A. Riis's settlements. One cannot but be lost in rapture over the glorious seascape here, yet how few are able to enjoy it.

Van Cortlandt Park.

Van Cortlandt Mansion: This best known and most accessible of the Bronx borough parks' old homesteads, was built by Frederick Van Cortlandt in 1748, as the figures so deeply cut into its massive stone walls tell us. On a little level spot toward the lake can be traced the foundations of the first Van Cortlandt house erected in 1700, not far from the home of the earliest Dutch pioneer, Van der Donck, who came here about 1650.

Under the watchful care of the Colonial Dames, the Van Cortlandt mansion has become a well-filled museum for relics of the past, and the old rooms and even the ancient kitchen have been magically made to appear as they were in days of yore. Best known, perhaps, is the Washington room, where the American general stayed over night on the eve of his triumphal entry into the then distant New York city, at the time of the British evacuation in 1783.

During the Revolution the old house was garrisoned by a Picquet guard of the Green Yaegers up to 1781, and in one of the rooms Captain Rowe of that company of Yaegers, after being fatally wounded by the patriots, expired in the arms of his broken-hearted bride-elect. In July, 1781, after the British were forced to withdraw all their troops to Manhattan island, General Washington dined at the Van Cortlandt mansion.

During the stirring years of the war, the New York city records were safely stored in the dark recesses of the Van Cortlandt family vault, a short distance above the mansion, Augustus Van Cortlandt being then city clerk. From the crest of Vault hill, the Americans lit the long line of signal fires that so successfully deceived their foe, while they themselves were slipping away to join their French allies at Yorktown, Va.

At the lower end of pretty Van Cortlandt lake can still be seen the ruins of the ancient Van Cortlandt mills, dating from 1700, which have in days long past "ground corn for both the friends and foes of American Independence."

PALISADES INTERSTATE PARK.

First Stage of Development Completed.

On November 22, 1909, the Hon. George W. Perkins, president of the New York Palisades Park Commission, wrote to Governor Hughes as follows:

"The work of stopping the blasting on the Palisades has been concluded and the New York Commission, working jointly with the New Jersey Commission, has acquired all of the face of the cliffs from Fort Lee ferry to Piermont, New York, including the riparian rights for the entire distance. This has been done within the limits of the appropriations made to the Commission for this purpose nine years ago."

As stated on page 46 of this report, the Palisades Interstate park was formally dedicated during the Hudson-Fulton Celebration on Monday, September 27, 1909, with exercises held at Alpine, N. J. While the acquisition of the cliffs and riparian rights of the Palisades along the entire length of the original jurisdiction of the Palisades Interstate Park Commission by no means completes the development of this public reservation, which contemplates a great riparian drive and other improvements, it marks the completion of the first great stage of progress in this notable undertaking for the preservation of the scenery of the Hudson river. It is, therefore, an occasion for congratulation to the States of New York and New Jersey, and of felicitation to the Commissioners by whose able and self-sacrificing labors the work has been brought to this degree of completion. This consummation is particularly gratifying to the American Scenic and Historic Preservation Society which had the honor of representing the State of New York, at Governor Roosevelt's request in 1899–1900, in working out the Palisades problem and devising the leg-

islation enacted by this State (chapter 170, Laws of 1900) for the creation of the Palisades Interstate Park Commission.

Second Stage of Development in Statu Quo.

The second stage of development of the Palisades Interstate park, namely, the acquisition of mountain lands between Piermont and Stony Point Battlefield State reservation, made possible by the extension of the Commission's jurisdiction by chapter 691 of the Laws of 1906, remains *in statu quo.*

Third Stage of Development Outlined.

In his letter to Governor Hughes, dated November 22, 1909, President Perkins continued at length, unfolding the future possibilities of the Palisades park in conjunction with the proposed benefaction of Mrs. Edward H. Harriman, whose confidence he enjoyed. This letter has so important a bearing on Mrs. Harriman's gift (the particulars of which are given more fully under the next head), that we quote it as follows:

During this period of time (the past nine years) the land which has been acquired (for the Palisades Park) has come to be used so generally by the population of New York as a recreation ground, that the Commission has been impressed with the necessity of enlarging the district and making it more accessible to the great population so near at hand. This could be done by making this strip of land the gateway and approach to land above the Palisades, where a much larger park could easily be reached and made available for the people.

Owing to the growth of New York city to the northward and the towns along the New York Central road, it would be impossible to acquire land for an easy exit or for park purposes to the northward of New York city on the east side of the Hudson river. By crossing the Hudson river at One Hundred and Twenty-fifth street, however, one immediately reaches the south end of the Palisades park, and if at that point a park were commenced which would include a roadway running north, such roadway would soon reach the uplands where land can still be acquired by the acre at reasonable figures. Not only could this property

be reached by land along the base of the Palisades, but it could be reached by water from New York city at very low excursion rates.

When the Commission was first created its jurisdiction extended only to Nyack, N. Y. Believing that the Palisades proper were only an approach to what ought to be done in the way of park development further up the State, the Commission's jurisdiction was extended in 1906 to Stony Point, and it was given the power to select and locate such mountain lands along the west bank of the Hudson river, in Rockland county, as in its opinion, might be proper and necessary for the purposes of extending the limits of the park and preserving the scenic beauty of the mountain lands along the bank of the Hudson river north of the Palisades; and in this connection it was given the power to take such lands, in fee or otherwise, by purchase, gift, or eminent domain, and to receive by gift, contribution or bequest moneys to be used in acquiring or improving such lands; conveyance of the said lands to be made to the Commissioners in their corporate name.

You will see from this that the Commission now has jurisdiction over the mountains and uplands running back from the Hudson river, in Rockland county. Part of the territory thus covered by the Commission's new jurisdiction includes the Hook mountain district.

The plan of the Commission, under which the Palisades proper have been saved, was to raise a certain amount of money from individuals and have the State contribute approximately as much more. Under this plan individuals have contributed, up to date, about $300,000 in money and land to the Commission's work of acquiring land, etc.; the State of New York has contributed $400,000 and the State of New Jersey $50,000.

The suggestion that the Commission now makes for your consideration is this: The Commission believes that a number of wealthy people would now give substantial amounts of money and land for the purpose of constructing a roadway along the Palisades, stopping the blasting at Hook mountain, and acquiring lands in Rockland and Orange counties for the purpose of a great State park in that neighborhood, provided that, in your judgment, it would be wise to urge the Legislature this winter to appropriate as much money for these purposes as individuals might contribute. In other words, if the aggregate contributions of individuals amounted to two and one-half million dollars

would you favor asking the Legislature to appropriate two and one-half million dollars?

If this suggestion meets with your approval the Commission would need to have your support in seeking to have its jurisdiction once more extended, as it was two years ago, so as to include the land adjacent to the Hudson river to a point as far north as Newburg.

In connection with this entire plan the Commission desires to call your attention to the location selected recently for a new State prison. This location is at a point which would be within the development of any such park as is contemplated, and if, in your judgment, it were expedient to consider removing the prison site to some other point, the Commission believes that such action would be most helpful in securing private contributions of money and land.

If you should desire to have the New York Commission go on and take up some such plan as is above outlined, and the whole plan should involve an expenditure of five million dollars, it would, of course, not require the expenditure in one year by the State of the suggested two and one-half million dollars. Indeed, the expenditure might be arranged in some such way as the Commission's original appropriation by New York State, which provided that it be allowed $200,000 the first year and the remaining $200,000 during the second year or as actually required thereafter.

The encouragement the Commission has received from individuals of late, as to what might be done in the way of private gifts to such an enterprise, makes it seem its duty to lay the whole project before you for your consideration, and await your advice and instructions before proceeding further.

Under date of November 23, 1909, Governor Hughes replied to Mr. Perkins at length, expressing his cordial sympathy with the project and making valuable suggestions in regard thereto. The correspondence may be found in full appended to the Governor's message of January 5, 1910. The result was the tender of Mrs. Harriman and others as stated under the next head.

Mrs. Harriman's Gift to the State.

In his message of the above date, Governor Hughes announced the tender of Mrs. Harriman in the following words:

It is with great pleasure that I announce a most important public benefaction. In accordance with the wishes of the late Edward H. Harriman, his widow, Mary W. Harriman, has informed me of her readiness to convey to the State a tract of about ten thousand acres of land situated in Orange and Rockland counties to be held in perpetuity as a State park, and in furtherance of the same object to give to the State or to such board or commission as may be authorized to receive and administer the trust, the sum of $1,000,000. Mrs. Harriman states that it was her husband's wish, and is her expectation, that this fund should be used by the State to acquire other parcels of land adjacent to the above-mentioned tract and intervening between it and the Hudson river, and in the improvement of the whole, so that the park may ultimately have some portion of river front and thus by improved accessibility be rendered more useful and more beneficial to the people of New York city and the neighboring counties. In addition to the condition that the land so conveyed should be held for use as a public park, the grant is to be made upon the further condition that if the State or any person or corporation under its authority shall hereafter condemn or seek to condemn other land in Orange county belonging to Mrs. Harriman or her descendants, the land which is the subject of the grant shall thereupon revert to her or her heirs. This condition is imposed for the protection of an adjacent tract upon which Mrs. Harriman resides. I submit herewith the correspondence relating to this proposal.

Through this generous and patriotic action, which cannot be too highly commended, there will at once be afforded a basis not only for necessary conservation, but for the development of a public recreation ground in a region of matchless beauty, rich in historical associations, and close to the abodes of more than half the people of the State.

I recommend appropriate recognition of this munificence and the enactment of suitable measures in order to provide for the acceptance of the gift and its use for the purposes defined.

Other Benefactions.

The Governor's message continues:

It is my privilege to announce still other gifts for similar purposes. The importance of protecting the shores of the Hudson

river and of establishing a Highlands park readily accessible to those living in the congested quarters of the metropolis has inspired a benevolence which cannot fail to receive the grateful appreciation of the people.

These additional gifts are the result of the activity of the Palisades Park Commission which was created in 1900. Through this commission, constituted under the laws of this State, and a similar commission with identical membership, established under the laws of the State of New Jersey, there has been acquired the face of the cliffs from Fort Lee ferry to Piermont, including the riparian rights for the entire distance. The jurisdiction of the commission constituted under the laws of this State at first reached only to Piermont creek in Rockland county; but by the amendment of the year 1906 it was extended so as to authorize the Commission "to select and locate such mountain lands along the west bank of the Hudson river in Rockland county north of Piermont creek aforesaid and south of the State reservation at Stony Point" as it might judge to be "proper and necessary for the purpose of extending the limits of said State park and thereby preserving the scenic beauty of the mountain lands along the west bank of the Hudson river in Rockland county north of the Palisades."

In the work already accomplished for the protection of the Palisades, the Commission has been materially aided by private contributions of money and land amounting to about $300,000, the State of New York having contributed $400,000, and the State of New Jersey, $50,000. The members of the Commission who have conducted the enterprise with conspicuous ability and advantage to the State, not only have served without compensation, but I am informed that the total amount received by them for their personal expenses during the nine years of their services is only $457.93.

The Commission has developed a plan for the construction of a roadway along the base of the Palisades from Fort Lee to Piermont, for the extension of the present park northward as contemplated in the act of 1906, and for the creation and improvement under its jurisdiction of a Highlands park including the land to be conveyed by Mrs. Harriman, with suitable connections between these parks and with the State Reservation at Stony Point.

For this purpose it has secured private subscriptions from residents of New York, New Jersey and Philadelphia, as follows:

John D. Rockefeller	$500,000
J. Pierpont Morgan	500,000
Margaret Olivia Sage	50,000
Helen Miller Gould	25,000
Ellen F. James and Arthur Curtiss James	25,000
William K. Vanderbilt	50,000
George F. Baker	50,000
James Stillman	50,000
John D. Archbold	50,000
William Rockefeller	50,000
Frank A. Munsey	50,000
Henry Phipps	50,000
E. T. Stotesbury	50,000
E. H. Gary	50,000
V. Everit Macy	25,000
George W. Perkins	50,000

These make a total, in addition to Mrs. Harriman's gift, which they are intended to supplement, of $1,625,000. These additional subscriptions secured by the Palisades Park Commission are upon the following conditions:

1. That in order that the Palisades Park Commission may carry out the proposed plan and receive and hold the land and money offered the State by Mrs. Harriman, its jurisdiction shall be extended to the northward along the west bank of the Hudson river to Newburg, and to the westward as far as and to include the Ramapo mountains, giving the Commission the same powers granted to it at the time it was created and at the time its jurisdiction was extended in 1906, including the right to condemn land for roadway and park purposes.

2. That the State of New York appropriate $2,500,000 to the use of the Commission for the acquiring of land and the building of roads and general park purposes.

3. That the State discontinue the work on the new State prison, located in Rockland county, and relocate the prison where, in the judgment of the Palisades Park Commission, it will not interfere with the plans and purposes of the Commission.

4. That in addition to the aforesaid appropriation from the State, a further sum of $2,500,000, including Mrs. Harriman's

pledge of a million dollars, be secured on or before January 1, 1910.

5. That in addition to the above $5,000,000 the State of New Jersey appropriate such an amount as the Palisades Park Commission shall deem to be its fair share.

The private subscriptions, including Mrs. Harriman's gift, already aggregate more than the sum of $2,500,000 stipulated, and I am informed that the Commission has reasonable assurances with respect to a contribution from the State of New Jersey.

With regard to the other conditions it may be observed that in view of the service already performed by the Palisades Park Commission and its present jurisdiction, it is appropriate that its jurisdiction should be extended as desired. To this Mrs. Harriman assents. The act passed at the last session of the Legislature, to create a reservation in the Highlands of the Hudson, should be amended or repealed, so as to avoid any conflict of authority. I may add that in the near future it may also be advisable to consider the desirability of proper measures to protect by suitable interstate action the watershed in northern New Jersey and in the adjoining part of this State, and that jurisdiction for this purpose might properly be confided to the same Commission.

It is also fitting that the location of the new State prison should not interfere with the execution of the plan, and that another site should be found therefor. A contract has not yet been let for the construction of the building, and whatever loss may result from the change by reason of any work on the prison site cannot fairly be regarded as a sufficient objection in the light of the extent and purpose of these contributions.

There remains the question of the appropriation to be made by the State. In view of the heavy demands upon the State treasury, to which I shall refer later, it will be difficult if not impossible for adequate appropriations to be made out of our annual income. Nor is it desirable that the completion of this plan should be delayed to await the raising of the necessary amounts by annual appropriations distributed over a long period of years. Such delay will inevitably increase the cost and obstruct the carrying out of the plan. The advisable course, in my judgment, would be to provide for the necessary appropriation by an issue of bonds with adequate sinking fund and thus to make available, as the Commission may require it, the desired amount, and to accomplish the purpose with the least possible delay and without needlessly en-

hanced expense. Under the Constitution it would be necessary that the creation of such a debt should be approved by the people at a general election, and it may be submitted for such approval next fall. Before these subscriptions were obtained I suggested this course to the Commission and they gave their cordial assent to its adoption.

I submit herewith the correspondence with the Palisades Park Commission in respect to its plans and these subscriptions, and I recommend that suitable action be taken in recognition of these gifts and for their acceptance, for the enlargement of the jurisdiction of the Commission and for the carrying out of its plans as proposed, including the change in the site of the new State prison. And I also recommend that proper provision be made for an issue of bonds to provide the necessary moneys to be supplied by the State, and that this proposal be submitted to the people for their approval at the next general election.

We may thus at an early day secure the conservation of the natural beauty of the west bank of the Hudson river and the provision of a public park of inestimable advantage to the people which will remain as a memorial of the generosity of the private contributors and of the value of enlightened co-operation between individuals and the State.

At the annual meeting of this Society held publicly in the New York Historical Society building on January 19, 1910, the following resolution was unanimously adopted:

Resolved, That the American Scenic and Historic Preservation Society expresses its sincere appreciation of the public spirit of Mrs. E. H. Harriman, Mr. J. P. Morgan, Mr. John D. Rockefeeller, and those associated with them, in tendering to the State of New York land and means for the creation of a great public park upon the Hudson river in Orange and Rockland counties.

Resolved, That the rapid growth of population on both sides of the river and the remarkable progress recently made in the science of propelling vehicles on railways and highways, which promise within fifty years to extend the metropolitan district nearly if not quite to the southern gate of the Highlands, give the proposed park an inestimable value, not only in conserving the natural beauty of the Hudson river, but also in providing an easily accessible suburban park for the health and happiness of present and future generations.

Resolved, That recognizing the farsighted wisdom and generous philanthropy of the donors, we very respectfully request the Legislature to accept the proffered gift upon the conditions accompanying it, including the removal of the new prison site to a more suitable locality and the appropriation of $2,500,000 for the acquisition of additional lands.

On March 7, 1910, the Hon. Howard R. Bayne introduced in the Senate a bill to amend the act creating the Palisades Interstate Park Commission (chapter 170 of the Laws of 1900) so as to authorize the Commission "to select and locate such mountainous lands along and adjacent to the west bank of the Hudson river in Rockland and Orange counties north of Piermont creek and south of the city of Newburg, and other lands to the west thereof and extending into the Ramapo mountains, except the land comprised in the United States government reservation at West Point and the land comprised in the State reservation at Stony Point and other lands now owned by the State of New York as may in the opinion of said board of Commissioners be proper and necessary for the purpose of extending the limits of said State park and thereby preserving the scenic beauty of or securing to the use of the public for park purposes the mountainous lands along and adjacent to the west bank of the Hudson river in Rockland and Orange counties and other lands to the west thereof and extending into the Ramapo mountains north of the Palisades." This bill is now pending before your honorable body and we hope that it will meet with your approval, together with the bill introduced by Senator Henry Wayland Hill on March 11th, to locate the proposed new State's prison on a site other than that selected in the town of Stony Point, and the bill which will eventually be submitted to you for the issuing of bonds for the furtherance of the park project.*

* The Legislature passed and on May 26th Governor Hughes signed six bills relative to the creation of this park. Chapter 360 repeals chapter 463 of the Laws of 1909 creating a forest reservation in the Highlands of the Hudson. Chapter 361 extends the jurisdiction of the Palisades Interstate Park Commission. Chapter 362 accepts Mrs. Harriman's gift. Chapter 363 provides for the issuing of $2,500,000 State 4 per cent. bonds for developing the new park. Chapter 364 authorizes the abandonment of the Bear Mountain site for the State prison. Chapter 365 directs the Prison Commission to select a new site for the State prison.

CROWN POINT RUINS GIVEN TO THE STATE.

In our annual reports for the years 1901 and 1902, we expressed the earnest hope that means might be found for the preservation of the very interesting ruins at Crown Point on Lake Champlain. This greatly desired end is now made possible by the generous offer of Messrs. Witherbee, Sherman & Company, of Port Henry, N. Y., to give the property to the State. The president of the company is Mr. Frank S. Witherbee, for many years a trustee of this Society. Under date of March 25, 1910, Mr. Witherbee addressed the following letter to Governor Hughes:

"Witherbee, Sherman & Company,
"(Incorporated)

"Iron Ore, Pig Iron, Phosphates,
"Port Henry, N. Y., *March* 25, 1910.

"Hon. Charles E. Hughes, *Governor, Albany, New York:*

"Dear Sir:

"Among the most interesting historical ruins of the Country are those at Crown Point, opposite the Village of Port Henry on Lake Champlain.

"Witherbee, Sherman & Company, Incorporated, who have conducted their business of Iron Mining in the vicinity for over sixty years, have secured possession of these ruins and desire to present them, through you, to the State of New York for the purpose of creating a State park to preserve them for all time. The tract, comprising about twenty-five acres, is located in a commanding position at the end of a long peninsula and contains the well-preserved ruins of two important fortifications known as Fort St. Frederic and Fort Amherst.

"Though small in area, the proposed park is as rich and preeminent in historical interest as any locality in this Country. Along its shores constant strifes, as far back as legendary history goes, have occurred between hostile Indian tribes for possession of that part of our Country and within its borders very likely was fought the far-reaching battle of Samuel de Champlain with the Iroquois.

"The French are supposed to have occupied a point of land within its borders and to have erected a blockhouse there, as early as 1690. They constructed in 1731 an important fortification at this point, which they named Fort St. Frederic after Frederic de Maurepas, French Secretary of State. The English, disputing their claim to this territory, determined that for the protection of their settlements in New England and New York, they must control it, and Crown Point was, therefore, the theatre of many stirring events during the French and Indian wars, which finally resulted in the retreat of the French from the valley of Lake Champlain and practically from the continent of America.

"Of Fort St. Frederic little remains to-day, except the earthworks and the crumbled walls of the old Fort. On the occupation of the English, the very extensive Crown Point or Amherst fortifications were started in 1759 and completed sometime thereafter, and the barracks and earthworks still standing in excellent condition are a lasting monument of the thorough work of construction.

"It is estimated by some historians that as high as £2,000,000 sterling were expended by the French and English Governments in the construction of these two fortifications.

"Around these fortifications and partly within the limits of this little park, can be seen the evidences of paved streets and many houses, and there existed here during the Colonial and Revolutionary periods a village perhaps the most important and largest between Albany and Montreal. A legend, partly confirmed by historical documents, is current that the English tried to win over the 'Green Mountain Boys' during the Revolutionary War, by promising them a separate province under practically the same form of Government as that of Canada, the southern boundary of which would have passed through Skeensborough (now Whitehall) and the capital of which would have been this Village of Crown Point.

"Our Corporation have felt that these ruins, which are perhaps the most extensive and best preserved of any in this country — with the possible exception of the fortress of San Marco in St. Augustine, Florida — should pass into the hands of the State of New York, and we tender this gift for the purpose of creating a State park, which shall be open forever to the public, and it is our expectation that — if accepted — the State will make suitable

provision to protect the ruins from spoliation to the end that they may be preserved in their present condition, so far as may be, for all time.

"Very respectfully yours,
"WITHERBEE, SHERMAN & COMPANY,
"Incorporated.
"By F. S. Witherbee,
"President."

On April 4, 1910, Governor Hughes transmitted this offer to the Legislature in a special message in which he said:

"It is most desirable that these ruins, of such extraordinary interest, should belong to the people of the State and should be properly cared for in their interest. We have recently celebrated the three-hundredth anniversary of the discovery of Lake Champlain, and we have fittingly commemorated the course of events which through savage strife and the rivalries of foreign powers led ultimately to the establishment of the Nation. This celebration has quickened the desire to preserve the priceless memorials of these fateful struggles; and we should most heartily congratulate ourselves that private generosity has provided this opportunity, and that patriotic sentiment has inspired this noteworthy act of beneficence on the part of the business men who are associated in the donor corporation. They deserve and will receive the sincere thanks of the people, and I take pleasure in recommending that your honorable body take appropriate action for the acceptance of the gift and for the preservation of the property in accordance with its provisions. I submit to you herewith copies of the conveyances which have been placed in my hands, awaiting your action."

The State is to be congratulated upon this very generous gift which makes possible the preservation of a group of landmarks second to none in historical interest in the State.

THE ADIRONDACK PARK.

The New Fire Extinguishing System.

On January 1, 1910, the Forest Preserve of the State of New York contained 1,641,523 acres, which may be classified as follows:

			Acres.
The Forest Preserve.	Adirondack Preserve.	In Adirondack park	1,411,636
		Outside of Adirondack park	118,923
	Catskill Preserve.	In Catskill park	100,908
		Outside of Catskill park	10,056
			1,641,523

During the past year, the destruction by forest fires was very small, due in part to the operations of the Forest, Fish and Game Commission under the amended Forest, Fish and Game Law and partly to the operations and orders of the Public Service Commission of the second district in compelling greater care on the part of the railroads running through the forests.

The organization of the fire protection service by Forest, Fish and Game Commissioner James S. Whipple has been an important and interesting feature of the forest conservation work. First, he divided the forest preserve counties into four districts as follows:

First. Franklin, Essex and Clinton counties.

Second. St. Lawrence, Lewis and Herkimer counties.

Third. Fulton, Hamilton, Oneida, Saratoga, Warren and Washington counties.

Fourth. Delaware, Greene, Ulster and Sullivan counties.

For each of these districts he appointed a *superintendent* with a salary of $1,500 a year and disbursements, selecting the ablest men in experience, mental endowment and desire to protect the forests that he could find. He then picked out about forty men for *fire patrolmen,* carefully examining each man engaged. These men were employed at the rate of $75 a month and expenses, only during the period of fire danger. He also selected about eighteen men for *special fire patrolmen,* at the rate of $75 a month and expenses. The latter constituted a sort of reserve force, to be called upon when needed in case of actual fire and to be paid only for the time actually employed.

The Commissioner then called together the boards of supervisors in the Adirondack counties, when necessary paying half the expense of assembling them, and discussed his plans with them,

inviting their co-operation. Next he gathered his men together in squads and instructed them. The superintendents were assembled at Albany every month.

When his force was sufficiently acquainted with his plans, the Commissioner began to build fire observation stations. These were located as follows:

1. On Moosehead mountain, in Township 5, on the south side of the Raquette river, between Piercefield and Hollywood in St. Lawrence county.
2. On Cat mountain, just south of Cranberry lake in St. Lawrence county.
3. On St. Regis mountain, about two miles west of Upper St. Regis lake in Franklin county.
4. On Mount Morris, just east of Big Tupper lake, in Township 25, in Franklin county.
5. On Whiteface mountain, northeast of Lake Placid, in Essex county.
6. On Hurricane mountain, about five miles northeast of Keene valley, in Essex county.
7. On Pharaoh mountain, about five miles east of Schroon lake, in Essex county.
8. On West mountain, west of Raquette lake, in Township 40, in Hamilton county.
9. On Snowy mountain, west of Indian lake, in Township 32, in Hamilton county.
10. On Hamilton mountain, about four miles south of Lake Pleasant, in Township 1, in Hamilton county.
11. On Gore mountain, about four miles southwest of North creek, on the gore between Townships 12 and 14, in Warren county.
12. On Thunder mountain, in Sullivan county.
13. On Pine hill in Ulster county.

All of these stations except three are equipped with substantial log cabins for the shelter of the watchmen and where needed observation towers have been erected. These stations are furnished with strong field glasses, range finders, maps made especially for the purpose, bedding and other camp equipment. When the stations were occupied during the fire danger season, supplies were

sent to them every two or three days. All the observation stations are connected by special telephone lines with the nearest regular telephone line. The longest connection thus made is nine miles from the station on Whiteface mountain. By means of this system, the Commissioner located at Saranac Inn can talk to almost all the stations.

For the use of the patrolmen, a number of fire extinguishers which can be carried on the back were purchased. These are excellent for extinguishing a ground fire in its incipiency. The Commissioner is trying to have the manufacturers make a special form of fire extinguisher in the shape of a pack basket for the forest fire service.

When a lookout observes smoke rising from any quarter of his territory, he locates it by his range finder and map, and telephones to the nearest patrolman. The latter goes to the scene of the fire, taking with him such additional assistance as may be necessary.

During the first year, the system worked admirably. On one day, no less than twelve fires were located from the Whiteface station, and the Commissioner at his camp knew of the discoveries within a minute. Men were sent to the fires in from thirty minutes to an hour and all were extinguished before they had extended any great distance. One-half of them would probably have been serious if not subdued at once. The skill of the lookouts is illustrated by the fact that one of the twelve fires above mentioned was located on the exact lot, twenty miles away. The Commissioner informs us that only in one case last year was a serious mistake made in locating a fire.

The experience of the first year has been very instructive, and will probably lead to important changes for greater perfection in the service. Some of the stations are probably too high on account of the mists which gather at lower levels, and their efficiency may prove greater if placed at lower elevations.

Another factor tending to reduce the number of fires last season was the greater care of the railroads under the stimulus of the orders of the Public Service Commission and the espionage

of the Forest, Fish and Game Commission. The New York Central road patrolled its road night and day with men on railroad tricycles, and they cleaned up their right of way better than heretofore. The Forest Commissioner, however, divided the whole railroad mileage into sections of twenty miles each and placed a man on each section to see what the railroad employees did. He also kept a man with each railroad gang in burning brush. The Commissioner reports that the Erie road was very negligent in its forest work and the Delaware and Hudson somewhat so, the New York Central being the best.

The fire risk was further reduced last season by the lopping of the tops removed from felled trees as required by the new law. The lopping was fairly well done, but it was necessary to make four or five arrests in order to enforce the law. The value of lopping — that is, cutting the debris of felled trees so that it will lie down close to the ground — is evident when comparative pictures show that vestiges of lopped debris disappear in about ten years, while tree-tops felled a decade ago and not lopped are still ready to burn.

Although the season of 1909 was regarded by many as one of exceptional dryness, the number of fires, the number of acres burned and the fire loss were reduced as shown in the following figures:

Acreage burned: In 1908, 177,000 acres; in 1909, 11,967 acres. Of the latter, 11,769 acres were private holdings and 198 acres State land.

Damage in 1908, $644,000; in 1909, $25,101. Of the latter, $10,251 was in the Adirondacks and $12,875 in the Catskills.

Number of fires in 1908, 700; in 1909, 250.

Average loss in each forest preserve town in 1908, $4,915.77 per town; in 1909, $5.76 per town.

Oil Burning Locomotives in Forests.

Upon the formal petition of the Forest, Fish and Game Commission, reinforced by the Association for the Protection of the

Adirondacks and other organizations and individual citizens, including the representatives of this Society, the Public Service Commission of the second district on April 2, 1909, issued an order designed to reduce the fire risk in the forest preserve by compelling the railroad companies whose lines run through the Forest Preserve to install oil burning locomotives and take certain other precautions.

The full text of the resolution is as follows:

Whereas, In the matter of the proceeding of the Forest, Fish and Game Commissioner under section 72 of chapter 130 of the Laws of 1908, to compel a change of fuel in the Adirondack Forest Preserve, the following matters have been proved to the satisfaction of the Commission:

1. The damage caused by fires occasioned by locomotives is such as to require a completely efficacious remedy.

2. The condition of the lands adjoining the right of way of the railroads through the forest, and the condition of the right of way, are such as to make the fire risk during the daytime exceptionally serious for the months from April 15th to November 1st.

3. That the only completely efficacious remedy for such fire risk is the development of such type of locomotive or the use of such fuel as will prevent the throwing of sparks from the stack and the dropping of coals from the ash-pan.

4. The railroad companies have failed in this proceeding to prove any completely satisfactory method of preventing spark throwing or the dropping of fire from the ash-pan, except the use of oil fuel.

5. The cost of oil fuel is such as to justify an order for its use in the Forest Preserve during the months of fire risk.

6. That there is practically no danger of fires being started by coal burning locomotives during the night between the hours of 8 P. M. and 8 A. M. Be it, therefore,

Resolved: 1. That the following railroad companies: The New York Central and Hudson River Railroad Company, operating the Mohawk and Malone railroad, Carthage and Adirondack railroad, and New York and Ottawa railroad; The Delaware and Hudson Company and the Cranberry Lake Railroad Company, be

required, subject to the provisions of the following paragraph 4, to burn oil for steam generation on all locomotives operated by each of said companies within the Forest Preserve in the Adirondack region during the months of each year from April 15th to November 1st, and between the hours from 8 A. M. to 8 P. M.

2. That all locomotives to be used by said companies within the Forest Preserve in the Adirondack region at night, from April 15th to November 1st in each year, between the hours of 8 P. M. and 8 A. M., shall be required to burn oil in the generation of steam, except such locomotives as shall have been inspected by this Commission and for which a certificate shall have been issued entitling such locomotive or locomotives to be operated by the burning of coal during said hours, which certificate shall be revocable at the pleasure of the Commission.

3. That any of said companies may apply at any time, on notice to the Forest, Fish and Game Commissioner, for an order modifying the period during which oil burning locomotives shall be used during the then current year.

4. That the complete installation of oil burning shall be effected not later than April 15, 1910.

5. That at least two locomotives on the Mohawk and Malone railroad, and two on the Delaware and Hudson railroad, be fitted up with oil burning apparatus and placed in service not later than July 15th of the present year, and maintained in service until at least November 1st.

6. That no locomotive other than an oil burning locomotive be used by the said companies within the limits of the Forest Preserve at any time subsequent to June 1, 1909, unless it shall have been inspected by this Commission and a certificate, revocable at pleasure, issued that such locomotive may be used within said Forest Preserve.

7. That this proceeding shall be continued, to the end that the Commission may from time to time take such further action by way of hearings, investigations, or orders as it may deem advisable.

8. That each of the several companies affected by this resolution make report to this Commission weekly to November 1, 1909, of all fires set by locomotives operated by it, giving the number of the locomotive known or believed to have set any such fire.

9. That an order embodying the provisions of this resolution be entered and served upon each of the railroad companies at once.

That said order take effect on the 15th day of April, 1909, and continue in force until modified or abrogated by this Commission. That each company be required by said order to notify the Commission before the 15th day of April, 1909, whether the terms of the order are accepted and will be obeyed.

The railroad companies complied with the exact requirements of the foregoing order. They installed on each line the number of oil burning locomotives which the order directed and these locomotives were run in regular service up to the close of the season of 1909. The Public Service Commission inspected the netting and ashpans of all coal burning locomotives operated in the Adirondacks during the season. One hundred and nine locomotives were inspected at least once and some twice.

The railroad companies, however, petitioned to the Public Service Commission for a modification of its order on various grounds and a public hearing was given by the Commission at Albany on February 8, 1910. The Forest, Fish and Game Commission, the Association for the Protection of the Adirondacks and other champions of the Adirondacks opposed the petition. On March 8, 1910, the Public Service Commission issued the following order:

In the matter of the application of The New York Central and Hudson River Railroad Company as lessee of The Mohawk and Malone railway, the Carthage and Adirondack railway and the New York and Ottawa railway, for a supplementary hearing on its petition for an extension of time of one year of the order of the Public Service Commission requiring the burning of oil in the Adirondack Forest Preserve.

Whereas, said company urges:

1. That the cost of oil burning will be greater than the estimate used by the Commission in its determination in this case, and the execution of the order will, therefore, require an increase of rates or reduce the earnings of said roads to an unreasonable extent.

2. That the plans for fire prevention instituted by said companies have proved successful during the past summer and it is

believed that a further trial will prove them to be such a complete success as to make the use of oil unnecessary, and,

Whereas, This Commission has by its inspectors kept informed of conditions in the Adirondacks during the past season and of the trials which aforesaid railroad companies have made both with coal burning and oil burning locomotives and such inspectors' reports show:

1. That said companies have been obliged to operate the trial oil burning locomotives under such conditions as to make it impracticable to determine accurately the relative consumption of oil and coal and that, therefore, the figures obtained from the extended experience with oil on the Southern Pacific railroad and used by the Commission in its determination in this case must remain more convincing than such experimental data as the railroads operating in the Adirondacks can show:

2. That the difficulties in maintaining coal burning locomotives in proper condition to secure safety of operation in the Forest Preserve were not overstated in the opinion of the Commission upon which the order in this case was based; and,

Whereas, The Commission is of the opinion that arrangements for extinguishing fires however apparently efficient do not fully meet the situation which imperatively requires that no fires be kindled, and,

Whereas, The aforesaid railroad companies have delayed the installation of oil burning locomotives in the expectation of showing to the satisfaction of this Commission that less expensive methods of fire prevention are practicable, and the time is now too short to permit the order to be made completely effective by April 15, 1910, as originally contemplated, and the Commission is of the opinion that an extension of time in the execution of said order may properly be granted provided the same precautions as to inspection of coal burning locomotives are taken as last summer, it is therefore

Ordered: (1) That the supplementary petition of The New York Central and Hudson River Railroad Company in this matter be and it is hereby denied.

Ordered: (2) That the time for the complete installation of oil burning locomotives be and hereby is extended from April 15, 1910, as follows:

Two oil burning locomotives to be placed in service April 15, 1910.

Three additional, May 1, 1910.
Ten additional, June 1, 1910.
Ten additional, July 1, 1910.
The remainder by August 1, 1910.

Ordered: (3) That the portion of the order in this matter issued April 1, 1909, authorizing the use of coal burning locomotives at night be and hereby is modified to permit the use of such locomotives through to destination if the trains to which they are attached are not more than two hours late and provided that such trains are regularly scheduled to operate within the Forest Preserve between the hours of 8 p. m. and 8 a. m.

On March 10, 1910, upon the application of the Cranberry Lake railroad, for exemption from the order requiring the use of oil as fuel, the Public Service Commission issued the following order:

Whereas, The Cranberry Lake Railroad Company has shown that the cost of oil, due to the freight rates on connecting lines is more than the price used by this Commission in its determination in this case; and

Whereas, It has been shown to the satisfaction of the Commission by the reports of its inspectors that protection against setting fires on the Cranberry Lake railroad and the facilities for extinguishing such fires as may be started are adequate under the present management of the company; and

Whereas, It has been shown that no serious fires have been started by the operation of coal burning locomotives on the Cranberry Lake railroad under the present management; and

Whereas, The Forest, Fish and Game Commissioner in a letter of February 24th to this Commission states as his belief that the operation of coal burning locomotives under the conditions existing on the Cranberry Lake railroad is practically free from danger; and

Whereas, This Commission is of the opinion that the exemption of said road from the requirements of the order of this Commission, dated April 1, 1909, relative to oil burning locomotives, may be safely made for the year 1910, therefore it is

Ordered, That the requirements of the order in this case, dated April 1, 1909, so far as the same may affect the Cranberry Lake railroad, be and they are hereby postponed in taking effect until

April 15, 1911, provided that the coal burning locomotives operated by said company shall be inspected and certified to by the inspector for this Commission in accordance with the terms of the order above referred to.

CONSERVATION OF NATURAL RESOURCES.

Mutual Relations of Material and Æsthetic Conservation.

In our last Annual Report (1909, pp. 120–122) we referred to the intimate connection between the preservation of natural scenery and the conservation of certain natural resources. This connection is almost self-evident, and needs only to be stated to be appreciated, for the forests, lakes, streams and mountains, which supply so much of our material wealth, are essential elements of beautiful scenery. It follows, therefore, that the two conservation movements, one aesthetic and sentimental in the best meaning of the word, and the other practical and utilitarian, touch at many points and in many ways are mutually helpful.

On September 30, 1909, our conservation committee, consisting of Prof. L. H. Bailey of Cornell University, Chairman, Hon. Charles M. Dow, Mr. Henry E. Gregory, Mr. Samuel V. Hoffman, Hon. Thomas P. Kingsford, William P. Letchworth, LL. D., Hon. Thomas R. Proctor, Col. Henry W. Sackett, Charles D. Vail, L. H. D., of Hobart College, George F. Kunz, Ph. D., Sc. D., and Edward Hagaman Hall, L. H. D., presented the following note to the National Conservation Commission at Washington:

The suggestion of the committee of this Society, that is appointed to co-operate with the National Conservation Commission, must naturally be determined by the objects for which the Society exists. It is the aim of the American Scenic and Historic Preservation Society to protect the interesting features of the natural landscape, to save from obliteration all historic places and objects, to erect suitable historical memorials where they are needed, to promote the beautification of cities and villages, and otherwise to promote in the people a regard for the beautiful in nature and for the historic in human institutions, cultivating this general field by means of free lectures, literature, prize competitions, correspondence, and other educational means as well

as by using its influence to have places and scenery preserved as parks and reservations. The interest of this Society, therefore, lies not so much in the fields of economic production as in the less definite regions of historic appreciation and artistic sensitiveness to surroundings. The report of its Committee on Conservation will naturally not deal with the direct economic questions with which most other co-operative societies and organizations would naturally be concerned.

The committee desires first to express its appreciation of the work of the National Conservation Commission and to pledge itself to co-operate with that Commission in the furthering of its work. The committee holds itself in readiness to aid in such enterprises as may originate from the National Conservation Commission and which are within the proper province of the American Scenic and Historic Preservation Society. The committee feels that the establishing of the National Conservation Commission marks a distinct advance in utilizing for the good of all the people the resources which really belong to all the people, and which should be used for their welfare, rather than exploited for the interest and gain of a few persons or wasted and despoiled by the thoughtlessness of the people themselves.

The committee holds that all natural resources should be protected, utilized in a scientific and unselfish way, and that the heritage of the earth should be passed over to our descendants with the least possible loss consistent with wise use in the present generation. Its special interest in the question, however, lies in its belief that all this effort should harmonize with the preservation of the beauty of our natural landscape and with the conservation of all places and scenes of historic interest.

It is too little appreciated that every natural object makes a two-fold appeal to the human mind: Its appeal in the terms of its physical or material uses, and its appeal to our sense of beauty and of personal satisfaction. As the people progress in civilization the public mind becomes constantly more sensitive to the conditions in which we live and the appeal to the spiritual satisfaction of life constantly becomes stronger. It is, therefore, of the very first importance that whatever is done by the National Conservation Commission shall be executed in the feeling that not only shall the physical needs of life be met, but that the earth will constantly be made a more satisfactory place in which to live, and that the lessons of history must exercise an increased

influence. It is important that we not only save our forests in order that they may yield timber and conserve our water supplies, but also that they may adorn and dominate the landscape and contribute to the meaning of scenery. It is important that our coal supplies be not only conserved for their use in the manufactures and the arts, but also that smoke does not vitiate the atmosphere and render it unhealthful, and discolor the objects in the landscape. It is of the greatest importance that water supplies be conserved by storage reservoirs and other means, but this conservation should be accomplished in such a way as not to menace health or offend the eye or destroy the beauty of contiguous landscape. The impounding of waters without regard to preserving natural waterfalls, streams and other scenery, is a mark of a commercial and selfish age, and is a procedure that cannot be tolerated in a highly developed society. It is important that regulations be enacted regarding the operation of steam roads through woody districts not only that the timber may be saved, but also that the natural beauty of the landscape may be protected from fire and other forms of destruction. The fertility of the soil must be saved, not only that products may be raised with which to feed and clothe people, but also that the beauty of thrifty and productive farms may be saved to the landscape. The property right in natural scenery is a distinct asset to the people, and the best conservation of natural resources is impossible until this fact is recognized.

On this point we call attention to the following paragraph in the report of the Commission on Country Life: "In estimating our natural resources we must not forget the value of scenery. This is a distinct asset, and it will be more recognized as time goes on. It will be impossible to develop a satisfactory country life without conserving all the beauty of landscape and developing the people to the point of appreciating it. In parts of the East a regular system of parking the open country of the entire State is already begun, constructing the roads, preserving the natural features, and developing the latent beauty in such a way that the whole country becomes parts of one continuing landscape treatment. This in no way interferes with the agricultural utilization of the land, but rather increases it. The scenery is, in fact, capitalized, so that it adds to the property values and contributes to local patriotism and to the thrift of the commonwealth"

It is especially important, in the opinion of this committee, that the National Conservation Commission lend its influence to the establishment of reserves in all parts of the country for the preservation of natural features of great scenic interest, for the protection of birds, animals and native plants, and also for the conservation of the lessons of history. The committee earnestly requests that in the program of the activities of the National Commission these questions may be given their due consideration.

Forest Conservation.

The necessity for forest conservation in the State of New York has been pressed upon our attention from various sources during the past year. In the first place, Forest, Fish and Game Commissioner James S. Whipple, in his campaign of education by means of illustrated lectures and public addresses, has depicted in alarming terms the rate at which the State is being denuded of its forests. By fire, decay, lumber operations and other causes, our trees are being cut away about five times faster than they are being reproduced. About 27 per cent. of the land of the State has some tree growth, but not over 5 per cent., including that owned by the State, has a valuable growth. At the present rate of denudation, the State will be rendered practically barren of forest growth within twenty years unless there is a change in the present proportion of tree cutting and tree planting.

From the United States Department of Agriculture we learn that in the country at large the forests are being consumed three times as fast as they are being grown.*

In addition to this general aspect of the field, we have had local complaints from two different sections of the State. In December, 1909, the owner of a beautiful glen on the west side of Seneca lake not far from Watkins Glen wrote to us stating that owing to

* On December 11, 1909, the United States Department of Agriculture issued an extremely valuable pamphlet of twenty-five pages (Forest Service Circular No. 171), entitled "The Forests of the United States: Their Use." It deals with such topics as what forests do, what we have, what is produced, what is used, what is wasted, where we stand, what should be done, the duty of the private owner, stopping forest fires, forest planting, the value of timber, conservative turpentining and logging, better tax laws, etc. The circular is distributed free by the government.

the removal of the forests adjacent to Rock stream and Big stream, the stream flow had been so reduced that the creeks were drying up. With a view to encouraging reforestation in that vicinity, we sent the following letter to property-owners in that neighborhood:

"Dear Sir.—As the official custodian of the Watkins Glen State Reservation, which was created through the efforts of the American Scenic and Historic Preservation Society, we have taken great interest in the condition of the lands with their streams and glens bordering on Seneca lake. We are, therefore, writing to you as a land-owner to invite your special interest in the forestation of your property with a view not only to increasing its value but also with the object of restoring the stream flow in your vicinity.

"The forests, by restraining the melting of snows in spring, preventing rapid evaporation in summer and providing a spongy soil for holding water, tend to equalize the flow of streams and prevent alternating floods and droughts. The forests also have an important effect on the climate, and serve as windbreaks to protect crops growing on adjacent farms. Tree planting is also a good investment from the financial standpoint.

"During the past fifty or seventy-five years, the removal of trees throughout the State has seriously impaired the natural resources of both its lands and streams. At the present rate of tree-removal, it is estimated that within twenty years, the forests of the State will be entirely gone, except where preserved on State land. As a consequence, the value of trees is increasing in proportion as the supply diminishes. Tree planting, therefore, is strongly to be advised for its practical benefits and as an investment as well as for the beautification of the landscape.

"In view of these facts, will you not take a personal interest in this movement for reforestation by undertaking a certain amount of replanting on your own property and by talking over the subject with your neighbors? By writing to Hon. James S. Whipple, Forest, Fish and Game Commissioner, Albany, N. Y., you can purchase transplants and seedlings at the following prices, free on board at Saranac Inn, N. Y.:

"White Pine transplants at $4.25 a thousand.

"White Pine seedlings at $2.25 a thousand.

"Scotch Pine transplants at $3.75 a thousand.

"Scotch Pine seedlings at $2.25 a thousand.

"If we can be of any help to you with suggestions or advice, we will be happy to correspond with you on the subject."

In February, 1910, we received a letter urging that we take measures for the preservation of the forests and scenery in the beautiful gorges of Lewis county.

Communications of the character of these in regard to the Seneca lake and Lewis county regions suggest the advisability of certain measures which are herewith submitted for your consideration.

State Control of Private Forests and Reservoirs.

The first fact which becomes apparent with respect to the denudation of our forests is this — that with the exception of those on the 1,641,523 acres in the State Forest Preserve, the cutting of which is prohibited by the Constitution, there is absolutely no legal restraint upon the destruction of the forests of this State. If it be true, as we believe, that forests exercise a beneficial influence beyond the area physically occupied by them and that their removal exerts a detrimental influence not limited to the land of the owner of the forest which is removed, it would seem as if a *prima facie* case for State interposition were established. That the State has the constitutional right to regulate the use of such property for the general good would appear from recent opinions of the courts. The remarks of Mr. H. N. Eldridge in "Law Notes" for May, 1909, are apropos of the subject. He says:

Two recent judicial utterances on the power of a State to regulate the doing of acts on private lands without compensating the owner of such lands for any loss occasioned thereby have a special interest at this time because of the popular movement for the conservation of natural resources.

The elementary rule of law that private property shall not be taken or damaged for public uses without just compensation is of course to be considered in connection with that other elementary rule of law that all property within a State is derived directly or

indirectly from the government and held subject to those general regulations which are necessary for the common good and general welfare. *Com.* v. *Tewksbury,* 11 *Met.* (*Mass.*) 55, wherein Shaw, C. J., said: "Rights of property, like all other social and conventional rights, are subject to such reasonable limitations in their enjoyment as shall prevent them from being injurious, and to such reasonable restraints and regulations established by law as the Legislature, under the governing and controlling power vested in them by the Constitution, may think necessary and expedient."

The Maine Senate, having in mind the power of a State to legislate for the general prosperity of the people, but being in doubt as to the extent of the power, requested the Supreme Court of Maine to give to the Senate their opinion on the following question, among others, to wit: "In order to promote the common welfare of the people of Maine by preventing or diminishing injurious droughts and freshets, and by protecting, preserving, and maintaining the natural water supply of the springs, streams, ponds, and lakes, and of the land, and by preventing or diminishing injurious erosion of the land and the filling up of the rivers, ponds, and lakes, and as an efficient means necessary to this end, has the Legislature power under the Constitution by public general law to regulate or restrict the cutting or destruction of trees growing on wild or uncultivated land, by the owner thereof, without compensation therefor to such owner?" All of the justices with the exception of one, who declined to give an opinion for constitutional reasons, were of opinion that the proposed legislation would be within the legislative power, and would not operate as a taking of private property for which compensation must be made. The court said: "While it might restrict the owner of wild and uncultivated lands in his use of them, might delay his taking some of the product, might defer his anticipated profits, it would nevertheless leave him his lands, their product and increase, untouched, and without diminution of title, estate, or quantity. He would still have large measure of control and large opportunity to realize values. He might suffer delay but not deprivation." See *Opinion of the Justices,* 103 Me. 506.

Considerable comment has arisen on account of a recent decision in New York which declared constitutional in part a statute entitled "An act for the protection of the natural mineral springs of the State, and to prevent waste and impairment of its natural mineral waters." It would appear that at the time this statute

was passed at least one company at Saratoga Springs was pumping from wells upon its lands great quantities of mineral water, for which Saratoga is noted. This mineral water holds in solution not only natural mineral salts but an excess of carbonic acid gas, and it was for the purpose of extracting this gas for the market that the pumping was done. The mineral water was then allowed to go to waste. The part of the statute which is material to the facts stated above, in effect forbids accelerating or increasing the flow of percolating waters or natural carbonic acid gas, from wells bored into the rock, by pumping or any artificial contrivance whatever, when the object of so doing is to extract and collect carbonic acid gas for the purpose of marketing the same. In *Hathorn v. Natural Carbonic Gas Co.*, 87 N. E. 504, the Court of Appeals (one judge dissenting) decided that this part of the statute was constitutional, and affirmed an order of the lower court restraining a corporation from doing what the statute prohibited. The court said: "It was entirely proper for the Legislature to adopt the provision in question defining and regulating the rights of persons desiring to use mineral waters like those at Saratoga Springs, and calculated to prevent such use thereof as would * * * result in waste of natural resources of the land to the injury of general and public interests." Judge Haight, the dissenting judge, differed from the majority on the ground that the statute did not attempt to regulate and preserve the production of the mineral waters of Saratoga Springs in order that the public might enjoy the medicinal properties contained in such waters, but absolutely prohibited throughout the entire State the pumping of waters from wells drilled into the rock for the purpose of extracting the carbonic acid gas contained therein, excepting only the salt reservation at Syracuse and the counties adjoining. On the larger question of whether the State of New York might regulate the taking of mineral waters at Saratoga Springs by appropriate legislation, Judge Haight had this to say: "While the mineral waters of Saratoga Springs are not used for domestic purposes nor to aid vegetation, they, however, possess medical properties which are valuable, and the State, for the benefit of the whole people, may by statute regulate the production of such waters, to the end that the natural springs may be preserved from contamination or destruction. Take, for instance, the springs at Carlsbad, Wiesbaden, the hot springs of Arkansas and of Virginia, the springs of Mt. Clemens, as well as those of Saratoga, which are visited annually

by thousands of people and some of whose waters are bottled and shipped broadcast over the land, and are used by thousands upon thousands of our inhabitants for medicinal purposes. Surely the State under its police powers may, in the interests of the people, protect such great gifts of nature to mankind. I am, therefore, fully in accord with the views expressed by Judge Hiscock in that portion of his opinion in which he discusses the police powers, and reaches the conclusion that the Legislature may, by statute, regulate the use."

It should be noted in connection with the New York case that the court gave weight to the fact that the common source of supply was affected by the increased flow of water caused by the pumping apparatus installed by the defendant. From this standpoint the case is like several which have been decided in recent years, based upon the decision in *Ohio Oil Co.* v. *Indiana,* 177 U. S. 190. In the words of the court in *Ex parte Elam* (Cal.), 91 Pac. 811, the decision in the United States Supreme Court established "that water, oil, gas, and all fugitive substances held in their natural subterranean reservoirs are exceptions to the general rule establishing absolute ownership in the proprietor of the surface of all that lies underneath; that these minerals, being migratory in their nature, having no fixed situs, are a part of the soil only so long as they are on or in it, but after they escape and go to other lands the title of the former owner is gone; that it follows, therefore, that no one owner of the surface of the earth within the area beneath which these minerals move can exercise his right to extract from the common reservoir in which the supply is held without diminishing the source of supply as to which all other owners of the surface must exercise their rights; that, in consequence of the nature of the deposits, of their transmissibility, of their interdependence, of the rights of all, and of the public at large, the State could lawfully exercise the power to regulate the right of the surface owners among themselves to seek to obtain possession, and to prevent the waste of the products in which all the surface owners within the area wherein they were deposited, as well as the public, had an interest."

The effect of these latest judicial utterances considered above will doubtless be further legislation in the different States on the subject of conservation. If such will be the effect they should be hailed with delight by the great mass of American people who have at heart the common good as against private greed and short-sighted commercialism.

It may also be considered whether State control should not also be extended to the management of private storage reservoirs. To a certain extent, the rights of riparian owners are now protected in the beneficial use of the stream-flow, but the creation and management of private reservoirs on public streams affect adjacent property in respects other than the mere use of the flowing water. Mr. Justice Holmes of the Federal Supreme Court, in a decision handed down April 6, 1908, which sustains the State of Maine in its contention that its police power is adequate to restrict the cutting of private forests, includes water within the scope of the principle enunciated. He says:

"The State as quasi-sovereign and representative of the interests of the public has a standing in court to protect the atmosphere, the water, and the forests within its territory, irrespective of the assent or dissent of the private owners of the land most immediately concerned."

It is apparent that modern conditions with respect to the use of our natural resources must sooner or later compel our law makers to face these new problems, and it may well be asked if the time has not now arrived to grapple with them.

SARATOGA SPRINGS STATE RESERVATION.

Under the last preceding head we have quoted references to the jurisdiction of the Saratoga Springs State Reservation Commission. As the annual reports of the American Scenic and Historic Preservation Society have come to occupy a recognized position through the country as a source of information upon questions relating to the preservation of scenery, landmarks, and objects of natural and scientific interests, we have considered it to be in the public interest to take cognizance in these reports of the operations of other State Commissions.

In our last report we briefly recorded the creation of the Saratoga Springs Commission. This was effected by chapter 569 of the Laws of 1909. The act created a board under the name of "The Commissioners of the State Reservation at Saratoga

Springs," consisting of three members. The Commission is empowered "to select and locate such lands in the town of Saratoga Springs, in the county of Saratoga, and any rights, easements or interest upon or in any lands in said town as it shall deem proper and necessary to be taken for the purpose of preserving the natural mineral springs in said town of Saratoga Springs and of restoring said springs to their former natural condition," etc. The Commission is empowered to acquire land or easements therein by condemnation, and is forbidden to sell them without authority of the Legislature. It is authorized to manage the reservation and grant concessions and leases, limit and prescribe the terms on which any excess of mineral water not used on the premises may be sold, and it may apply the proceeds of rentals and sales of water to the expenses of maintaining and restoring the property. The act appropriates $600,000 for the acquisition of lands, easements, etc.

In May, 1909, the Governor appointed as Commissioners the Hon. Spencer Trask of New York and Saratoga, the Hon. Edward M. Shepard of New York and Hon. Frank N. Godfrey of Olean. On December 31st, Mr. Trask was killed in a railroad accident on the New York Central railroad at Croton-on-Hudson, and in January, 1910, the Governor appointed Mr. George Foster Peabody of New York to fill the vacancy.

Up to January 1, 1910, the Commission had not acquired any large interest in the springs, having expended only $26,250 in purchasing a one-tenth interest in the Hathorn spring for $20,000 and a one-fourth interest in the Champion spring for $6,250. The reason for the expenditure of such a small proportion of the $600,000 appropriated is that the extent of private rights in the Saratoga Springs has not yet been settled, and as probably twice $600,000 will eventually be required to acquire the more important springs, it was not deemed wise to exhaust the Commission's present resources in an investment which might, on account of its incompleteness and its consequent inability to control the situation, prove ineffective in carrying out the declared

purposes of the reservation. The preliminary report of the Commission, transmitted to the Legislature January 13, 1910, in reviewing the situation at Saratoga, says:

When the best known springs at Saratoga — such as the Congress, Hathorn, Patterson, Putnam, and others forming a group near the center of the village — made the name of Saratoga famous and brought it 100,000 visitors annually, the waters were used as they flowed or spouted naturally from the ground. No attempt was made to augment the flow of one spring so as to affect the flow of any other spring. The essential thing, from the standpoint of the owners, the village, and the public, was the use of the various waters, which materially differed in their therapeutic qualities, for either drinking or bathing. Nor was it supposed that the waters had other value. But about ten years ago it was discovered that the carbonic acid gas, with which these mineral waters were charged, could be profitably separated from the waters and sold. And such an industry was then established at Saratoga, companies being formed, generally called the "gas companies," for the promotion of the industry. At first the gas companies extracted the carbonic acid gas from what were called "dry wells" or "pockets" and also from the mineral water as it naturally issued from the ground. But, later, it was discovered that by pumping, and especially by the more powerful pumping practicable with machinery of modern invention, a far larger amount of mineral water could be forced from the ground, and, consequently, more gas extracted. Such pumping plants were accordingly installed by the gas companies in the neighborhood of another group of springs about two miles south of the center of the village — this latter group including springs which have come to be well known under the names of Vichy, Arondack, Geysers, Champion, Chief, Lincoln, Adams and others. This process of powerful pumping was applied by the gas companies to a number of springs of the latter group and with the result of a serious diminution of the flow of other of the springs, including some, if not most, of the group at the center of the village. It also appeared, either in actual fact or in repute — and, for this purpose, repute is nearly as injurious as the fact would be — that the chemical analyses of the minerals contained in solution in various Saratoga springs were by such pumping altered, and thereby in reality or by repute, the therapeutic virtue of the springs was also affected. That the pumping of one

spring could materially affect the flow or character of another spring had in July, 1907, been judicially established in a suit brought by the proprietors of the Hathorn spring against Dr. Strong's Sanitarium.

The agitation over the pumping and other interferences with the springs injured the repute of the springs themselves and of the village as a health resort to such an extent that in 1908 the Legislature enacted a law (chapter 429) "for the protection of the natural springs of the State and to prevent waste and impairment of its natural mineral waters." The act made it unlawful to accelerate artificially the flow or produce an unnatural flow of either mineral water or natural carbonic acid gas. The Onondaga salt springs and those adjacent thereto are excepted from the provisions of the act. Suits were then brought against the gas companies. In one case — the second Hathorn case so-called — an injunction was granted and its constitutionality was sustained by the Court of Appeals, but the court held, nevertheless, that it was competent for the gas companies to prove, if they could, that their pumping did not accelerate the natural flow or injure other springs. The result of the various litigations, which are reviewed in the preliminary report of the Saratoga Commission presented to the Legislature January 13, 1910, has been that some cases are to be retried, some new cases are in prospect, the injunction in the second Hathorn case is more or less evaded, and the whole situation is such as to counsel deliberation on the part of the Commission in making further expenditure of the appropriation until the rights of the various parties are more clearly established and it becomes more certainly apparent just what is best to be done to secure the objects aimed at in the reservation act.

Meanwhile, in the month of March, 1910, the Attorney-General rendered to the Comptroller an interesting opinion as to the constitutionality of chapter 569 of the Laws of 1909 creating the Saratoga Springs Commission. There were two chief propositions involved as to the constitutionaliy of this act, one, as to whether

the act provided for a public use, and the other as to whether just compensation for property taken was provided. While the language of the act was not as clear as it might have been as to whether or not the public should have the right to use upon the premises the waters of the springs acquired, the act as a whole is construed as giving this right and the use is held to be a public one within the meaning of the Constitution. The chief point involved in the second question was as to whether, under article 7, section 2 of the Constitution which reads:

"The State may, to meet casual deficits or failures in revenues, or for expenses not provided for, contract debts; but such debts, direct or contingent, singly or in the aggregate, shall not at any time exceed one million of dollars; and the moneys arising from the loans creating such debts shall be applied to the purpose for which they were obtained or to repay the debt so contracted, and to no other purpose whatever,"

the State had the right to appropriate the sum of $600,000 and direct that it be paid by the issuance of bonds in the sum of $600,000 without submitting the question to the people, as is required by section 4 of the same article. It was held as to this point that the Legislature could constitutionally authorize the Comptroller to issue these bonds. Two prior acts of the Legislature making similar provision were mentioned, one in the case of the acquisition of the Niagara reservation, in which a bond issue was authorized by chapter 182 of the Laws of 1885, and one (chapter 220 of the Laws of 1907,) by which the Forest Preserve Board was created and the acquisition of lands in Adirondack park authorized. The last act was passed upon by the Court of Appeals in the case of *People* v. *Adirondack Ry. Co.,* 160 N. Y. 225, though this point was not directly raised. Attention was also called to the fact that after the provision made in the case of Niagara reservation, the Constitutional Convention was held in 1894, and that this provision remained unchanged.

NIAGARA FALLS.

A National Park Recommended.

In his annual report to the President of the United States, dated December 2, 1909, the Hon. J. M. Dickinson, Secretary of War, made important recommendations looking toward the improvement of the scenery of Niagara falls and river. Under the act for the control and regulation of the waters of the Niagara river, for the preservation of Niagara falls and other purposes, which received the executive approval June 29, 1906, the Secretary of War on January 18, 1907, appointed a committee of landscape architects and others well fitted by training and experience to advise him in that regard and charged them with the study of the present conditions at the falls, with a view to devising such measures, at reasonable cost, as would result in improving the scenic aspects on the American side of the Niagara gorge, particularly in what is known as the milling district in the vicinity of the falls, which occupies the brink of the gorge for nearly a mile below the New York State reservation.

The War Department immediately took such measures as were within its powers to remedy the conditions disclosed by the committee. These measures were designed to modify certain objectionable practices which had grown up in connection with the installation of power plants on the American side of the river. In some cases clauses looking to the betterment of existing conditions were embodied in the permits issued to grantees in the operation of the act of June 29, 1906, for the diversion of a limited quantity of water from the river above the falls for power purposes.

On April 13, 1908, the committee — consisting of Mr. Frank D. Millet, Mr. Frederick Law Olmstead, Mr. John Stephen Sewell, and Capt. Charles W. Kutz, U. S. A.— recommended the creation of a national park on the American side of the Niagara river, extending from the present State reservation to Lewiston. On April 9, 1909, the committee — upon which Maj. Charles Keller, U. S. A., had superseded Captain Kutz — renewed the recommendation with the suggestion that the expense of the na-

tional park be defrayed by a tax upon the water power granted at Niagara Falls. This recommendation is heartily indorsed by the Secretary of War, who, in his annual report to the President, December 2, 1909, says:

"Perhaps the most important recommendation of the committee relates to the establishment of a national park on the American side of the river. It will, I think, be generally conceded that the preservation of the scenic features of this great water-fall is an object which appeals with peculiar force to the American people, and that object can, in my opinion, be best attained by the acquisition of such lands on the American side of the river as are necessary to the establishment of such a national park. I recommend the establishment of such a park as is suggested by the very competent committee which has investigated the subject, leaving the question of authorizing the purchase of the necessary lands and the provision of funds for its accomplishment to the liberality of Congress."

The plan for the national park is set forth in the two letters of the committee to the Secretary of War, dated, respectively, April 13, 1908, and April 5, 1909. In the former, after speaking of certain improvements effected in the neighborhood of the power houses at the falls, the committee continues:

In what goes before the committee has set forth in some detail, but as briefly as possible, the objectionable features of the present situation, and what has been accomplished in the way of amelioration. The net result is that some improvement will have been brought about in the immediate future, and the creation of additional objectionable conditions prevented. But under the existing law it is not possible to solve the general problem in a thoroughly satisfactory manner. The committee takes the liberty, therefore, of stating what it believes to be the only complete solution, together with the grounds for that belief. It may be added that there is no difference of opinion among its members in reference to this matter and that the views of the committee are those of all its members.

The scenic attractions centering about Niagara falls may be divided into three separate elements, consisting of the rapids above the cataract, the cataract itself, and the gorge below. These three elements combine to form a natural wonder not equaled elsewhere in the known world, for here scenic beauty is joined

with an exhibition of resistless power. That this natural wonder should not be despoiled to promote the material welfare of individuals the committee thinks may be accepted as a fundamental principle.

The rapids above the falls, the American falls, and Goat island are within the area of the State reservation, and their preservation is assured. But more important in many ways than the tract in the immediate vicinity of the brink of the falls is the gorge, where is witnessed an exhibition of power more impressive to many observers than that of the great cataract itself, seen, as it generally is, from the top. As the best view of the American rapids is from a standpoint where the water appears to tumble out of the sky, so the most impressive view of the falls is from below, either near at hand or from a distance. The whirlpool and the lower rapids can only be seen in their full majesty and might from near the water's edge.

If present conditions continue and the gorge remains in private ownership, not only will the disfigurements increase and multiply, but the extent of them will increase rapidly until the whole gorge will entirely lose its value from an aesthetic point of view. It is already projected to elevate the railroad tracks a short distance away from the edge of the cliff. The present electric road, which is desirable because it makes the gorge accessible, is a scar on the fair face of nature, because it has been built and is maintained without regard to the beauty of the landscape. These are only a few, but perhaps some of the most cogent, reasons which lead the committee to urge seriously and in all earnestness that a strip of property be acquired by the United States connecting with the State reservation at one end and extending the whole length of the gorge, embracing the talus, the cliff, and a tract of land at the top of the cliff not less than 100 yards wide, and that the same be converted into a national reservation under proper Federal control.

This accomplished, all the buildings within this strip can be destroyed or moved back under such arrangements as will impose the least possible hardship upon private owners and corporations, the vegetation can be readily restored, and within a reasonable period of time the whole area in the immediate vicinity of the falls and the gorge will return as nearly as possible to its original condition, with the added advantages of accessibility.

By means of additional legislation and agreements with the Canadian government, the diversion of water for power purposes should be kept within such limits that the impressiveness of the cataract shall not be diminished. As this question is under investigation by the Lake Survey, this committee does not undertake to say what these limits shall be. If a reasonable time is taken to bring about the establishment of the proposed national reservation, many of the changes and removals herein recommended will probably cost almost nothing, and while the total expense will still be considerable this committee feels that it will not be out of proportion to the importance of the end in view and that the plan proposed would meet the approval of present and future generations. Nothing less will suffice to preserve to the world this great natural heritage, the destruction of which for commercial purposes is a crime against all peoples for all time. The establishment of the proposed reservation, with its proper restoration, regulation, and maintenance, is, therefore, urged upon the favorable consideration of all those whose co-operation is required to bring it about.

In the committee's letter of April 5, 1909, the following suggestion is made as to the means for paying the cost of the proposed reservation:

The committee in renewing this recommendation desires to suggest a means whereby it may be carried into effect practically without cost to the United States.

The hearings before the Secretary of War on November 26 and 27, 1906, showed that for the privilege of diverting water within the park limits the commissioners of the Queen Victoria park received as compensation from each of the three Canadian power companies at Niagara Falls not less than the following annual rentals:

	Cost per horse-power.
For the first 10,000 horse-power	$1 50
For the second 10,000 horse-power	1 00
For the third 10,000 horse-power	75
For all above 30,000 horse-power	50

These rentals probably also cover the privilege of occupying land within the park.

On the New York side the Niagara Falls Power Company and the Niagara Falls Hydraulic Power and Manufacturing Company own the land upon which their works are situated, and also as riparian owners claim to own the bed of the Niagara river to the international boundary. To this extent their position differs from that of the Canadian power companies.

In view of the fact that any tax levied upon the power companies must in the final event be paid by those who use the power and who thus benefit financially at the expense of the volume of flow of the falls, there would seem to be no injustice in compelling those who are now securing this cheap power to contribute toward a fund which shall serve to rescue the gorge from its present desecration and preserve it permanently against further abuse.

We, therefore, believe that a small annual tax per horse-power should be levied upon all power generated at Niagara Falls on the American side or imported into the United States from Canada, this tax to be covered into a fund for the purchase and maintenance of the national reservation above recommended. The amount of tax which could be imposed without placing an unfair burden upon the business cannot be decided upon without a thorough study of the situation, and we recommend that an inquiry be made upon this point by the proper officer of the government, acting in consultation with our committee.

We are without knowledge as to the value of the land needed for a proper reservation. With your authority, one of the field parties of the Lake Survey, of which the secretary of this committee is in local charge, might readily make the necessary survey, and a local real estate expert might be engaged to appraise the land, much of which is of small value. It is possible that funds appropriated by the act of June 29, 1906, might be used for this purpose. Otherwise, an appropriation would be needed to pay for the necessary field work.

COLORADO SPRINGS' WONDERFUL PARKS.

On Christmas day, 1909, the city of Colorado Springs, Colo., came into possession of 480 acres of land of extraordinary natural beauty, known as the Garden of the Gods, through the generosity of the heirs of the late Mr. Charles W. Perkins of Burlington, Iowa. This latest addition to the parks of that city,

following so close upon the great gift of Gen. William J. Palmer, makes the Colorado Springs parks probably the most wonderful city park system in the United States with respect to the character of its scenery. These two gifts illustrate so notably the beneficent foresight of individual citizens who look ahead and make future provision for the happiness of the people of a growing city that they are worthy of particular attention, not only as examples for the encouragement of similar gifts to other cities, but also because they contrast so strikingly with the retroactive tendency on the part of some of the citizens of New York city who would reduce the area of parks already established by the erection of buildings therein.

General Palmer's Great Gift of Parks to Colorado Springs.

In our thirteenth annual report (1908, pp. 98–99) we alluded briefly to General Palmer's gift of parks to the city of Colorado Springs. We now have at hand further particulars supplied by the courtesy of the park commission and Chamber of Commerce of that city. Colorado Springs, it may be mentioned in passing, is situated on a high mesa seven miles from the base of Pike's Peak and three miles from the Front range. It is situated in the midst of a region abounding in all kinds of scenery presented by mountains, canyons and mesas with their infinite variety of erosion forms. Prior to the gift of General Palmer, the city had only two parks, one of which it had given over for a courthouse.

General Palmer's gift in 1907 embraced over 1,500 acres of land, including completed parks, boulevards, broad roads, trails and footpaths, partly in the city itself and partly over the mesas and into the adjacent mountains, and is estimated to have cost $1,500,000.

The park commissioners, speaking of General Palmer's farsighted and comprehensive plan, say:

The original townsite plat of Colorado Springs was filed on September 26, 1871. In this the foresight of General Palmer provided wide streets and a city block dedicated to park purposes.

This block is now known as Acacia or North Park. The Antlers Park was given by The Colorado Springs Company on November 9, 1882, and the Alamo Park, or what is sometimes known as South Park, on April 7, 1899. Subsequently an additional strip extending from Cascade avenue to Sierra Madre street, 175 feet in width, adjoining the Antlers Park on the south, was added. First deeding the following properties to trustees, General Palmer gave to the city Palmer Park, Bear Creek Canon, North Cheyenne Canon, or what is popularly known as the High Drive, Bruin Inn and the lands and rights of way belonging to the same, and included therein Cutler Mountain and Crystal Park trail, and still later, on March 29, 1907, his greatest gift, the Monument Valley Park with all its improvements and equipment.

He sought to make practical and effective use of every advantage which the position of the city gave it; open air and sunshine, mountains and plains; to surround the city with nearby parks, mountain driveways, woodland paths and trails; to furnish places for healthful outdoor exercise, and quiet, restful enjoyment; thus capitalizing for us these natural resources, otherwise practically unavailable to our people except to the most limited and crude extent.

He aimed to secure public recreation grounds within the limits of the city, and purchasing the unsightly two-mile stretch along the Valley of the Monument between the right of way of the Denver and Rio Grande railroad and the low bluff to the west of Cascade avenue, he transformed this uninviting tract into a beautiful and serviceable park filled with shaded walks, trees, shrubs, lakes and malls, and children's playgrounds, where the people could have enjoyment, rest and recreation without the intrusion of vehicles of any kind — a park for the people, a park almost in the center of the city and easily accessible to the people.

He sought to secure some vantage spot from which one could overlook the Mesa upon which the city is built, to the range lying to the north and south of Pike's Peak; and securing the tract to the northeast of the city, known as Austin Bluffs, he opened its 600 acres throughout with roads, trails and paths, for our outdoor life and happiness, yet leaving it almost as Nature fashioned it and made access easy by constructing the Boulevard and the Paseo from the city limits to the park.

This land he directed should be kept and maintained as a park so far as possible in the condition in which Nature has

fashioned it, and directed that nothing should be done to detract from the natural beauty of the land, or its fitness for the superior and controlling purpose of the outdoor recreation of the people. This park, which the trustees insisted should be hereafter known as Palmer Park — with its shrubs and small pines, its attractive picnic grounds, its miniature canyons and bluffs rising abruptly from the plains, affords a most magnificent view over the city, of the Front range, of Pike's Peak, of Mt. Baldy, of Mt. Rosa and of Cheyenne Mountain to the west and southwest; of the Spanish peaks to the south; of the plains to the east; and rivals in its varied beauty and effectiveness, in its views ever changing with sunshine and shadow, the scenery from any point near the city.

Loving nature, always keenly enjoying his outings through the mountains on foot or horseback, General Palmer sought to give others the means of enjoying healthful outings which the Front range and the nearby mountains offered, so he planned and carried to completion The High Drive from the limits of Colorado Springs up over the hills, up through Bear Creek Canyon, over the high intervening ridge, and into North Cheyenne Canyon, a sixteen-mile drive, for seven miles winding over the mountains through the pines, overlooking and through the canyons, with the ever-changing scenery of mountains and plains. Then, as an accompaniment to The High Drive, he built the Cutler Mountain and Crystal Park trails, which wind up along the steep sides of the mountains, affording views of the strange rock sentinels, of tall pines, of streams, falls, canyons, recesses amid the forest trees, and the great plains far off to the east.

The unimproved tract of seven acres through which the fountain flows, owned by the city, upon its southern border, and known as Dorchester Park, he beautified and made into a charming local recreation spot that brightens the entire neighborhood.

The Boulevard heretofore built from Colorado Springs to Manitou having fallen in bad condition and disuse, he purchased, reconstructed and put it into good condition, thus furnishing an adequate entrance to Manitou.

Then, lest the cost of the maintenance of these parks, if thrown suddenly upon the people should apparently be burdensome, General Palmer agreed to pay to the city $45,000 to be paid into the park tax fund, in descending sums, beginning with $8,000 in 1908, and ending with $1,000 in 1917.

Gift of the Garden of the Gods.

In 1879, the late Mr. Charles W. Perkins of Burlington, Iowa, formerly president of the Chicago, Burlington & Quincy railroad, purchased the Garden of the Gods, a tract of 480 acres four miles northwest of Colorado Springs, remarkable for the fantastic forms into which the red and white sandstone rocks have been eroded in the course of geologic ages. To these forms various names have been applied. The Gateway is formed by two huge masses of a bright red color between which the road passes. Between them a smaller rock stands like a sentinel to guard the passage. The highest point on the rocks, 330 feet high, is called the Kissing Camels. Within this portal one comes to fantastic forms which look like the handiwork of Titans or the forms of mythological beings turned to stone by magic. The slender Cathedral Spires look like the ruins of a great temple. The Tower of Babel, the Three Graces, the Shipwreck, and the Siamese Twins are some of the names applied to other formations which take an infinite variety of shapes of men, beasts, and inanimate objects which appeal to the imagination. Adjoining the Garden of the Gods is Mushroom park, containing many mushroom-shaped rocks and other formations. Among them is the remarkable Balanced rock, weighing 500 tons and resting on a base only four by five feet in size. Beyond looms the lofty summit of Pike's Peak. It is not difficult in the midst of such natural wonders to understand the origin of the folklore of a people living among such or similar surroundings, or to comprehend the beginnings of many mythological stories such as are embodied in Grimm's and Andersen's fairy-tales. Nor need we hesitate to believe the statement that the Garden of the Gods was once the worshipping place of the Indians, who saw in the gigantic rocks the images of their divinities and heard in the echoing Cave of the Winds the voice of their Great Spirit.

Mr. Perkins shared the pleasure of his remarkable possession with the public, and visitors were always welcome to the garden free of charge. On several occasions he was offered large sums

of money for the park, which, according to the valuation made by the Colorado Springs park commission, is worth $200,000, but he refused all of them, desiring that the great natural wonders should be free to all the people. In his will he made no disposal of this tract, but left a note, written on the back of an old envelope, which said:

"It is my wish that my children give the Garden of the Gods to the city of Colorado Springs for park purposes."

With a high sense of honor, as well as with becoming public spirit and generosity, the heirs of Mr. Perkins, acting through his son, Mr. Charles E. Perkins, placed the property in the hands of three trustees, Messrs. H. C. Hall, H. LeB. Wills, and D. V. Donaldson, with instructions to convey it to the city as soon as suitable conditions could be arranged. In due time they tendered the property to the city, and the municipal ordinance formally accepting it became a law December 25, 1909. The children of Mr. Perkins who made the gift are: Mr. Robert F. Perkins, of Framingham, Mass.; Mrs. Alice Perkins Hooper, of Boston; Mrs. Edith Perkins Cunningham and Mrs. Margaret Perkins Rice, both of Westwood, Mass., and Miss Mary Russell Perkins and Mr. Charles E. Perkins, both of Burlington, Iowa. No ceremonies marked the transfer on Christmas day, but in the near future an elaborate program will be carried out when representatives of the Perkins family will go to Colorado Springs, and a handsome bronze tablet, to be designed by Mr. Guy Lowell, grandson of James Russell Lowell, will be unveiled.

The conditions of the gift are that the tract shall continuously and forever be designated as "The Garden of the Gods," and shall be maintained and used as a public park, free to all; that no intoxicating liquors shall ever be manufactured, sold or otherwise dispensed upon the premises; and that no buildings other than those necessary to care properly for the property shall ever be erected.

It is impossible to estimate the measure of happiness to present and future generations of residents of that growing city, and

Garden of the Gods, Colorado Springs, Col.
The Gateway. Pike's Peak in the distance. See page 111.

Garden of the Gods, Colorado Springs, Col.
The Three Graces. See Page 111.

Garden of the Gods, Colorado Springs, Col. The Siamese Twins. See Page 111.

visitors to it, represented by this great gift, and the country at large may well share with the city of Colorado Springs her pride in and gratitude for these benefactions.

With the foregoing acquisition, the park system of Colorado Springs embraces 2,666 acres and is valued at $2,017,000 according to the estimate recently filed with the city auditor by the park commission.

Negotiations for South Cheyenne Canyon.

Not content with these acquisitions, the enterprising city of Colorado Springs, through its park commission, is negotiating for the purchase of South Cheyenne canyon, famous for its Seven Falls, Pillars of Hercules and other natural wonders. The city has secured an option to purchase this tract of 323 acres for $217,500 and the city council has passed an ordinance providing for a special election in the near future to authorize a bond issue and give the city the right to acquire the property for park purposes.

A unique feature of the purchase is the fact that the canyon will pay for itself within a period of sixteen years. For a long time, this scenic attraction has been in private possession and an admission fee has been charged. This practice will have to be continued as the conditions are such that the city could not bond itself for this purchase were the property not profit-yielding. The total receipts of the canyon for the last five years have been about $130,000 with a maintenance cost of only $35,000. The city already owns its sister canyon, North Cheyenne, with its magnificent "High Drive."

HETCH–HETCHY VALLEY.

Secretary Garfield's Decision Reversed.

In our fourteenth annual report (1909, pp. 124–129) we reviewed the situation presented by the application of the municipal authorities of San Francisco to the Federal government for an exchange of land by means of which the city would be enabled to

flood the Hetch-Hetchy valley in the Yosemite National Park, California, for water supply purposes. At the date of our last report, the maps of location for the Lake Eleanor and Hetch-Hetchy reservoir sites in the park were on file with the approval of the Hon. James R. Garfield, former Secretary of the Interior, and a resolution was pending in Congress to make the grant effective. Against this measure were arrayed the American Scenic and Historic Preservation Society, the Society for the Preservation of National Parks, the American Civic Association, the Playground Association of America, the General Federation of Women's Clubs, the California and other State Federations of Women's Clubs, the American Alpine Club, the Sierra Club of California, the Appalachian Mountain Club of Boston, the Mazamas of Portland, the Mountaineers of Seattle, the Chicago Geographical Society, the Saturday Walking Club of Chicago, and many other leading clubs of the United States.

It will be recalled that in 1903 Secretary of the Interior Hitchcock emphatically denied the application for the taking of the Hetch-Hetchy valley, and later Secretary Metcalf, after careful investigation, also denied it. Then Secretary Garfield approved the project, laying down the extraordinary proposition that "in considering the reinstated application of the city of San Francisco, I do not need to pass upon the claim that this is the only practicable and reasonable source of water supply for the city. It is sufficient that after careful and competent study the officials of the city insist that such is the case."

On March 4, 1909, Secretary Garfield was succeeded by the Hon. Richard A. Ballinger who has partially reversed Secretary Garfield's decision. Secretary Ballinger, soon after his induction into office, caused a careful investigation to be conducted as to other sources of water supply, and also personally examined the conditions in company with John Muir and others. Further to determine the necessity of retaining Hetch-Hetchy within the terms of the permit, in October last he instructed Director George Otis Smith of the Geological Survey and Engineers Hill and

Hopson of the Reclamation Service to investigate the subject. These officials concurred in the conclusion that the Lake Eleanor project is amply sufficient to meet the present and prospective needs of the city of San Francisco.

In February, 1910, therefore, Secretary Ballinger advised the mayor and supervisors of San Francisco that in the estimation of the Geological Survey and the Reclamation Service, they can secure an abundant water supply from sources other than the Hetch-Hetchy, and he called upon them to show cause why he should not cancel the order of his predecessor to the extent of rescinding that portion of the Garfield permit which would have permitted the conversion of the Hetch-Hetchy into a reservoir.

Although this action covers only a part of the project against which our protest was directed, it is, so far as it goes, a matter for public congratulation. Those who have opposed the flooding of the valley are also appreciative of the position taken on the subject by the Hon. Herbert Parsons, Member of Congress from New York city. When the bill of Representative Smith of California was before the House Committee on Public Lands last year, Mr. Parsons made a careful study of the subject and prepared an adverse minority report on it. He took issue with the contention of Secretary Garfield that "the public interest meant a water supply for San Francisco," and affirmed the finding of Secretary Hitchcock that "public interest meant the preservation of the natural curiosities and wonders in their natural condition." In conclusion, Mr. Parsons said:

"Unwilling though I would be to deny to San Francisco and other cities on the bay of San Francisco the use of the Hetch-Hetchy if it was essential as a storage reservoir for a municipal water supply, a condition that seems not to exist unless it be that it is essential because it can be got from the Federal government for next to nothing, I believe that we owe it to all the people to preserve Hetch-Hetchy uninterfered with for the use and enjoyment of all the people and to carry out the policy intended when it was included within the boundaries of the Yosemite National Park."

In view of the divergent views entertained concerning the Hetch-Hetchy project by different Secretaries of the Interior, and the danger that under some successor to the incumbent the project may be renewed with possibilities of success, it is to be hoped that Congress will pass a law placing the entire Yosemite Park, including the Hetch-Hetchy, on a par with the Yellowstone National Park, so that it would require a specific act of Congress to alienate any portion of it, and taking that power out of the hands of the Secretary of the Interior. Such a measure, it is believed, could not be slipped through Congress unobserved, nor could any succeeding Secretary of the Interior reverse the conservative position taken by Secretary Ballinger.

NATIONAL PARKS AND MONUMENTS.

Names and Area.

An idea of what the Federal government has done in the way of preserving remarkable scenery, ancient landmarks and ruins, and valuable scientific works of nature may be gained from the following list of national parks and monuments which are given in the order of creation:

DATE.	NAMES AND LOCATION.	ACREAGE.
1832.	*Hot Springs Reservation, Arkansas	912
1872.	*Yellowstone National Park, Wyoming, Idaho and Montana	2,142,720
1890.	*Sequoia National Park, California	161,597
1890.	*General Grant National Park, California	2,536
1890.	*Yosemite National Park, California	719,622
1892.	*Casa Grande Ruin, Arizona	480
1899.	*Mount Rainier National Park, Washington	207,360
1902.	*Crater Lake National Park, Oregon	159,360
1902.	*Platt National Park, Oklahoma	848
1903.	*Wind Cave National Park, South Dakota	10,522
1904.	*Sullys Hill National Park, North Dakota	780
1906.	*Mesa Verde National Park, Colorado	480
1906.	*Five mile strip for protection of Mesa Verde ruins	175,360
1906.	*Devil's Tower National Monument, Wyoming	1,152
1906.	*Montezuma's Castle National Monument, Arizona	160
1906.	*Petrified Forest National Monument, Arizona	60,776
1906.	*El Morro National Monument, New Mexico	160
1907.	*Chaco Canyon National Monument, New Mexico	20,520
1907.	†Cinder Cone National Monument, California	5,120
1907.	†Lassen Peak National Monument, California	1,280
1907.	†Gila Cliff Dwellings National Monument, New Mexico	160
1907.	†Tonto National Monument, Arizona	640

* Administered by the Interior Department.
† Administered by Department of Agriculture.

DATE.	NAMES AND LOCATION.	ACREAGE.
1908.	*John Muir National Monument, California	295
1908.	†Grand Canyon National Monument, Arizona	818,560
1908.	†Pinnacles National Monument, California	2,080
1908.	†Jewel Cave National Monument, South Dakota	1,280
1908.	*Lewis and Clark Cavern National Monument, Montana	160
1908.	*Tumacacori National Monument, Arizona	10
1908.	†Wheeler National Monument, Colorado	300
1909.	†Mount Olympus National Monument, Washington	610,560
1909.	*Navaho National Monument, Arizona	600
1909.	†Oregon Caves National Monument, Oregon	480
1909.	*Mukuntuweap National Monument, Utah	15,360
1909.	*Shoshone Cavern National Monument, Wyoming	210
1909.	*Natural Bridge National Monument, Utah	2,420
1909.	*Gran Quivira National Monument, New Mexico	160

The foregoing does not take into account the national forest preserves and the national game preserves which are mentioned in a succeeding paragraph. Following are brief sketches of several of the national parks and monuments.

Hot Springs Reservation.

This reservation is situated at Hot Springs, Ark. The original reservation of the land surrounding the hot springs was made by the act of Congress approved April 20, 1832 (4 Stat. L. 505), which merely reserved four sections of land including the springs "for the future disposal of the United States." The act of June 11, 1870 (16 Stat. L. 149), authorized the bringing of suits by persons claiming title, legal or equitable, to any of said lands, in order to quiet title thereto; and by the act of March 3, 1877 (19 Stat. L. 377), a commission to be known as the Hot Springs Commission was authorized to survey, plat, and lay out the city of Hot Springs into convenient squares, blocks, lots, avenues, and streets, in order that the same might be sold as therein provided. This act finally reserved the Hot Springs mountain and the lands containing the springs, and placed the reservation under charge of a superintendent, to be appointed by the Secretary of the Interior. The act also authorized the Secretary to grant hot water and other privileges upon the reservation.

Upon the reservation are forty-nine hot springs, having an aggregate flow of about 1,000,000 gallons per day. It has been

* Administered by the Interior Department.
† Administered by Department of Agriculture.

demonstrated many times that these waters are possessed of some wonderful curative principle, but what this principle is it is not possible to say. The department caused a chemical analysis of the various springs to be made in 1902, which was valuable as a scientific reference table, but did not indicate the presence of anything remarkable which could be regarded as the active healing agent of the waters. In 1904 Dr. B. B. Boltwood of New Haven, Conn., was designated to examine into the radio-activity of the waters on the reservation; and his report showed that the waters are radio-active to a marked degree, such radio-activity being due, however, to dissolved radium emanation (a gas), and not to the presence of salts of radium or other radio-active solids.

The principal diseases benefited or cured by the use of the waters (either externally or internally) are rheumatism in various forms, blood disorders of a chronic nature; gout; stiff joints; sciatica; paralysis; spinal diseases; eczema; psoriasis; acne, and various other forms of skin diseases; female diseases, especially sterility and leucorrhea; malaria, alcoholism, excesses from tobacco habit; and nervous affections. This list should not be regarded as defining any absolute limit, however, for in the light of further experience it will doubtless be found that other maladies will succumb to the healing power of the waters.

There are twenty-five bathhouses receiving hot water under franchise from the department, of which eleven are on the reservation and fourteen on private property.

Since the acquisition of this reservation, the government has expended upward of a million dollars in the beautification and protection of these highly curative springs. The creek flowing through the valley and in whose bed a few of the springs rise has been arched over. A system of parks, covered with forest trees and containing fine boulevards and walks, beautiful artificial lakes and landscape gardening, has been developed in part. With one exception, the springs have been covered with masonry so that their waters cannot be tampered with. The water is

conveyed by protected pipes into reservoirs or directly to the twenty-four bathhouses on and off the reservation. These twenty-four bathhouses receiving hot water under franchise gave 703,854 baths in 1908 and the amount paid therefor was $197,235. The prices of baths and the fees of attendants are regulated by the government.

Since 1879, a free bathhouse has been maintained by the government for "the invalid poor of the United States." In the year ended June 30, 1908, 184,150 free baths were given to 7,191 diseased, crippled or otherwise afflicted persons. Of these, 69.5 per cent. were white and 30.5 per cent. colored. About one-tenth of the males were veterans of the Civil War.

Among those who seek to make use of the valuable qualities of the springs are many professional ball players. For ten years the entire Pittsburg club has trained at Hot Springs. Other baseball players, also, go there, including many of those who might be termed the veterans, those who have been playing ball successfully in the major and minor leagues for from ten to twenty-five years.

Yellowstone National Park.

The first reservation of public lands of the United States for purely scenic purposes was that of the Yellowstone national park which is located in the States of Montana, Idaho and Wyoming and which was set aside by act of March 1, 1872 (17 Stat. L. 32.) It embraces an area of 2,142,720 acres and has an average altitude of 8,000 feet. This famous park is so well known that there is no need for describing it here. It is now visited by about 20,000 tourists annually.

Sequoia National Park.

Sequoia park is located in Tulare county, Cal., and has an area of about 250 square miles, or 160,000 acres; it lies 300 miles southeast of San Francisco, and may be reached via the Southern Pacific railroad to Visalia; thence via the Visalia Electric Railway Company to Lemon Cove, and by stage from that point to the Giant Forest, the Mecca of all visitors who come

to see the "big trees." The park was set aside by the act of September 25, 1890 (26 Stat. 478), supplemented by the act of October 1, 1890 (26 Stat. 650), and placed under the control of the Secretary of the Interior.

The above area comprises approximately 87,160 acres of magnificent merchantable timber, 57,768 acres of woodland (firewood), 5,760 acres of grass land, and 9,312 acres of desert land. The local names of lumber trees in the order of predominance are white fir, sugar pine, yellow pine, sequoia, Jeffry pine, red fir, cedar, foxtail pine, silver pine, white pine, and juniper; of firewood trees, oak, juniper, willow, cottonwood, red alder, sycamore, maple, ash, white pine, mahogany, red bud, false elm, nutmeg, laurel, and buckeye. The average number of board feet per acre in the merchantable timber is 32,000, and each acre of woodland is estimated to produce 22 cords of wood.

The big trees rank first among the natural features of the park; they are found only in the south central portion of California, and grow in a peculiar red soil at an altitude of from 5,000 to 7,500 feet, varying in size, according to age, from saplings to trees with a diameter of 36 feet, and sometimes 300 feet in height. They are fitted by nature for almost everlasting life and are remarkably tenacious of existence; many may be seen burned almost through at the base and still flourishing at the top.

The "General Sherman" tree, in Sequoia National Park, has the reputation of being the largest tree in the world; the second in size being the "General Grant" tree, 34 feet in diameter and 107 feet in circumference. The Giant Forest grove contains a half million of trees, of which 5,000 or more are over 15 feet in diameter.

There are many interesting mountain peaks, the most popular and accessible crag being Moro rock. A trail recently completed to Twin lakes has opened up travel to many beautiful lakes: Twin lakes are 9,200 feet above sea level, with areas of 20 and 3 acres. Lake Evelyn has an elevation of 10,000 feet and Hockett's lake 8,500 feet.

The caves in order of importance are Paradise, Clough's, Marble, and Palmer's, all in the limestone belt of Sequoia park. Paradise cave was discovered in 1901, and on account of the difficulty of access (by a long, tortuous, steep and makeshift road and trail), much exploration has yet to be undertaken. It is very large and has great possibilities for development.

The park abounds in wild animal life, including mountain lions, wild cats, wolves, coyotes, rattlesnakes, porcupines, skunks, quail, grouse, squirrels, foxes, chipmunks, and woodchucks. In 1905 sixteen elk were placed in the middle of the park.

General Grant National Park.

This park, which lies northwest of Sequoia park, one-half in Tulare county and the other half in Fresno county, Cal., has an area of four square miles. The distance from camp Sequoia in Sequoia National Park to the ranger's cabin in the center of General Grant National Park is thirty-five miles, but the distance between the boundaries of the two reservations is probably not more than eight miles by trail. The park is sixty miles from Visalia, on both the Southern Pacific and Sante Fé lines, and is best reached by wagon road from Sanger, on the Southern Pacific railroad. The main attraction is the grove of great sequoia trees, including the "General Grant," which is surpassed in size only by the "General Sherman" tree in Sequoia park, and on account of its accessibility has become the favorite camping place, in summer, of many people of the San Joaquin valley.

The park was set aside by the act of October 1, 1890 (26 Stat. 650), and placed under the control of the Secretary of the Interior, in the same manner as Sequoia park.

Yosemite National Park.

This park is situated in Tuolumne, Mariposa, and Mono counties, Cal., and originally covered an area of about 1,512 square miles. The lands embraced therein were set aside by act of Congress approved October 1, 1890 (26 Stat. 650), and were placed under the supervision of the Secretary of the Interior. By the

act of February 7, 1905 (33 Stat. 702), and the joint resolution of June 11, 1906 (34 Stat. 831), the boundaries were changed, excluding a total of 555.94 square miles therefrom and including a total of 168.35 square miles not previously within the reservation, making the present area of 1,124.41 square miles, or 719,622.40 acres. The second change in boundaries included the recession of Yosemite valley and Mariposa Big Tree grove to the Federal government. The famous Hetch Hetchy valley is in the Yosemite National Park as described in our last annual report.

Casa Grande Ruin.

This reservation is located near Florence, eighteen miles northeast of Casa Grande station, on the Southern Pacific railroad, in Pinal county, Ariz., and contains about 480 acres. It was set aside by executive order dated June 22, 1892, under the act approved March 2, 1889 (25 Stat. L. 961.) The building thereon is an interesting prehistoric ruin and was discovered by Padre Kino in 1694. It is constructed of puddled clay, molded into walls and dried in the sun and of a perishable character. The building was originally five or six stories high, covering a space 59 feet by 43 feet 3 inches. The walls of the structure, owing to the action of the elements, have gradually disintegrated. Of late years a widespread interest has been manifested in the ruin, which has been visited by a large number of people.

On May 9, 1906, the Secretary of the Interior directed the temporary withdrawal from any form of disposition whatever of the north one-half of section 27, township 4 south, range 9 east, comprising 320 acres, as the same was represented to contain prehistoric ruins, and was placed under the charge of the custodian of the Casa Grande ruin, such action being in line with the policy for the preservation and final exploration of all prehistoric ruins for the benefit of science.

Mount Rainier National Park.

By the act of Congress approved March 2, 1899 (30 Stat. 993), certain tracts of land therein described, lying in the State of Washington, were set aside for the benefit and enjoyment of

the people of the United States, to be known as the "Mount Rainier National Park." This park is eighteen miles square, with an area of 207,360 acres, and lies wholly within the Ranier National Forest. The summit of Mount Ranier is about one and one-half miles southwest of the center of the park, but the reservation includes substantially the whole mass of the mountain proper with its wonderful glaciers.

Deer abound in many parts of the park. Goats are found only in the high mountains. Bears are fairly numerous and cougars are not uncommon.

Crater Lake National Park.

This park was established by act of May 22, 1902 (32 Stat. 202) entitled "An act reserving from the public lands in the State of Oregon, as a public park for the benefit of the people of the United States, and for the protection and preservation of the game, fish, timber, and all other natural objects therein, a tract of land herein described, and so forth." It provides "That the tract of land bounded north by the parallel forty-three degrees four minutes north latitude, south by forty-two degrees forty-eight minutes north latitude, east by the meridian one hundred and twenty-two degrees west longitude, and west by the meridian one hundred and twenty-two degrees sixteen minutes west longitude, having an area of two hundred and forty-nine square miles, in the State of Oregon, and including Crater Lake, is hereby reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart forever as a public park or pleasure ground for the benefit of the people of the United States, to be known as 'Crater Lake National Park.'"

Platt National Park.

This park, located in the State of Oklahoma, is the result of an agreement with the Choctaw and Chickasaw Indians, ratified by act of July 1, 1902 (32 Stat. 641, 655), by which the Indians ceded to the United States the natural springs around the village

of Sulphur and so much of Sulphur creek, Rock creek, Buckhorn creek and the lands adjacent to the springs and creeks, as the Secretary of the Interior might deem necessary for the proper utilization and control of the springs and waters of the creeks. The price paid was $20 an acre. The area thus acquired was increased under the Indian Appropriation Act of April 21, 1904 (33 Stat. 220), by certain additions costing $60 an acre until now the park embraces 848 acres. When Oklahoma became a State, the Federal government expressly reserved its jurisdiction over the Sulphur Springs Reservation as it was then called.

By a joint resolution of June 29, 1906 (34 Stat. 837), the name "Sulphur Springs Reservation" was changed to "Platt National Park" "in honor of Orville Hitchcock Platt, late and for twenty-six years a Senator from the State of Connecticut and for many years a member of the Committee on Indian Affairs, in recognition of his distinguished services to the Indians of the Country."

Wind Cave National Park.

This park was created by act of January 9, 1903, entitled 'An act to set apart certain lands in the State of South Dakota as a public park to be known as the 'Wind Cave National Park.'" It provides "That there are hereby reserved from settlement, entry, sale, or other disposal, and set apart as a public park, all those certain tracts, pieces or parcels of land lying and being situate in the State of South Dakota and within the boundaries particularly described as follows: Beginning at the southeast corner of section thirteen, township six south, range five east, Black Hills meridian, South Dakota; thence westerly, to the southwest corner of the southeast quarter of section sixteen, said township; thence northerly along the quarter-section lines to the northwest corner of the northeast quarter of section four, said township; thence easterly to the southwest corner of section thirty-four, township five south, range five east; thence northerly to the northwest corner of said section; thence easterly to the northeast corner of section thirty-one, township five south, range

six east; thence southerly along the section lines to the southeast corner of section seven, township six south, range six east; thence westerly to the southwest corner of said section; thence southerly to the southeast corner of section thirteen, township six south, range five east, the place of beginning: *Provided,* That nothing herein contained shall be construed to affect any valid rights acquired in connection with any of the lands embraced within the limits of said park."

Sully's Hill National Park.

This reservation was set aside by executive proclamation, dated June 2, 1904, under the act approved April 27 1904 (33 Stat. L., 319), and contains about 960 acres. It is located on the south shore of Devil's lake, North Dakota, having about two miles of shore line, with its western boundary one mile east of the Fort Totten Indian School. Inasmuch as no appropriation has been made for the care and protection of this reservation, Mr. Charles L. Davis, in charge of the Devil's Lake Indian Agency, North Dakota, has been designated as acting superintendent and required to exercise the necessary supervision and control over the same until other provision can be made for the protection of the park. The tract is well wooded and has an ample supply of water and many rugged hills, among which, on the western boundary, lies what is known as "Sully's Hill." In the southwestern part of the park is a small body of water known as "Sweet Water lake," west of which the surface is generally level and the soil good. Sully's hill and Sweet Water lake are much frequented during July and August by the people of North Dakota for rest and recreation, as that State has very few wooded tracts for such purposes. There are a number of prehistoric mounds on the hilly portion of the reservation which have been explored, and portions of human skeletons, stone, copper, and ivory trinkets taken therefrom.

Montezuma Castle National Monument.

This national monument is located on Beaver creek in Arizona about thirty or forty miles northeast of Prescott. It embraces

a very remarkable dwelling of walled masonry, built into the face of a cliff which also abounds with cliff dwellings of the excavated type.

Mesa Verde National Park.

This park was created by act of Congress approved June 29, 1906 (34 Stat. 616), reserving certain tracts in the State of Colorado therein defined from settlement, entry, sale, etc., and naming it Mesa Verde National Park.

This reservation is situated in Montezuma county, Colo., adjoining the Southern Ute Indian Reservation, and within its boundaries are many notable prehistoric ruins. Prior to the creation of the park, the entire district suffered greatly from vandalism, many of the burial mounds having been destroyed. The cliff dwellings thereon comprise a group of prehistoric structures of great importance to the study of American archaeology and are reported by travelers and eminent scholars to be among the most interesting and instructive objects of our country. These ruins were first discovered several years ago by a cowboy from the Mancos, who was hunting lost cattle on the Mesa, the principal ruins most easily accessible and most interesting to visitors being the villages known as Spruce Tree house, the Cliff palace, and the Balcony house.

The Spruce Tree house, or village, so named from a large fallen red spruce by which it is reached, is near the head of a draw of Navajo canyon, and is composed of a number of connecting square houses. It probably originally contained about 130 rooms, or accommodations for about 250 people, the rooms averaging 8 feet 2 inches by 8 feet 3 inches on the floor by 6 feet 2 inches in height, and the room and house walls are from 8 to 10 inches thick. These walls are made of dressed stone laid in an adobe mortar with the outside tiers chinked with small flat chips of rock or broken pottery.

Cliff palace is the largest and best known of these ruins, and is justly reputed to be one of the most famous works of prehistoric man in existence. It is located about two miles across

the Mesa, southeast of Spruce Tree house, and is reached by a rough, circuitous trail winding down from the Mesa above. It consists of a group of houses in a fair state of preservation, all connecting and opening into each other, the whole forming a crescent of about 100 yards from horn to horn, and contains ruins of 146 rooms. The most notable feature of the same is a tapering loopholed tower, most probably the watchtower of the village.

Balcony house is located due east of Spruce Tree house, and comprises about twenty-five rooms, some of which are in almost perfect condition.

In each of these villages is an elaborate system of fortifications composed of walls 2.3 feet thick, and in some cases 20 feet high, and watchtowers about 30 feet high, one having a platform on top, presumably for a sentinel, and another being a sort of blockhouse, its front wall being pierced with small loopholes for arrows at the proper distance above the floor to conveniently shoot through. It is apparent from this remaining evidence that the cliff dwellers lived in constant fear of attack by hostile tribes.

John Muir National Monument.

As stated in our report for 1908 (pp. 99–101), the John Muir national monument was established by executive proclamation January 9, 1908. This consists of 295 acres of primeval redwood forest in township 1 north of range 6 west, Mount Diablo meridian, in Marin county, California. It lies on the southern slope of Mount Tamalpais about six miles from San Francisco. It was given to the government by Mr. and Mrs. William Kent of Chicago and was named after John Muir, the noted naturalist.

Originally this land was part of the old Spanish grant, Ranche Sausalito. The largest redwoods are 18 feet in diameter at the butt and will approach 300 feet in height, rising with perfectly straight and clean stems. Their age is somewhat problematical but they are believed to be from 1,000 to 1,500 years old.*

* Not as old, probably, as the Sequoia gigantea in the Calaveras grove, estimated by John Muir to be 4,000 years old.

Except for a narrow strip of brush along the east border and a fringe along the southwest line, the whole canyon is covered with a dense forest growth. Redwood is the dominating tree, towering high above everything else and forming fully three-fourths of the forest. Douglas fir is next in importance, and scattered over the entire tract are all the various hard woods common to the region, chief among which are the numerous oaks, madrona, alder, maple and mountain laurel, all of which form a kind of dwarf underwood to the lofty redwood and fir.

Grand Canyon National Monument.

As state in our last annual report (1909, pp. 129, 130), the Grand Canyon national monument was established by executive order January 11, 1908.

Prior to July 1, 1908, the Grand Canyon national monument lay within a larger area proclaimed as the Grand Canyon national forest. On July 2, 1908, President Roosevelt issued a proclamation creating, from July 1st, the Kaibab national forest, which embraces with other areas that portion of the Grand Canyon forest lying north of the Colorado river, and another proclamation creating the Coconino national forest, embracing with other areas that portion of the Grand Canyon national forest lying south of the river. Thus the Grand Canyon national monument is included partly in the Kaibab and partly in the Coconino national forests.

Jewel Cave National Monument.

Jewel Cave is situated thirteen miles west and south of Custer, the county seat of Custer county, South Dakota. The area surrounding it was proclaimed as a National monument on February 7, 1908.

The area of the Jewel Cave National Monument embraces the northern halves of sections 2 and 3 of township 4 south, and the southern halves of sections 34 and 35 of township 3 south, of range 2 east, Black Hills meridian — a tract measuring one mile north and south by two miles east and west. It is part of a high rolling limestone plateau about 6,000 feet above sea level, broken by numerous ravines, which run into the two main canyons

HETCH-HETCHY VALLEY, YOSEMITE NATIONAL PARK, CALIFORNIA.
View from Surprise Point, looking toward lower end of valley. See page 113.
Photograph by H. W. Gleason, Boston, Mass.

HETCH-HETCHY VALLEY, YOSEMITE NATIONAL PARK, CALIFORNIA.
The Tuolumne River. See page 113.
Photograph by H. W. Gleason, Boston, Mass.

draining this area. Jewel Cave is situated in Hell Canyon. About one mile above Jewel Cave, Hell Canyon forks into three branches, locally known as East Hell Canyon, Hell Canyon, and West Hell Canyon. All of the branches have high precipitous walls and are very winding and picturesque. In the east fork is found the only stream in which water flows throughout the year within this area. This stream heads at Bull Spring and Alkali Springs east of the tract and sinks in the bed of the canyon a short distance above Jewel Cave.

Jewel Cave was discovered August 18, 1900, by two prospectors whose attention was attracted by the noise of wind coming from a small hole in the cliffs on the east side of Hell Canyon. The cave as far as known is located in limestone formation and is apparently the result of the action of the water. A prominent geologist who visited this cave believes it to be an extinct geyser channel. The cave as far as explored consists of a series of chambers, connected by narrow passages with numerous side galleries. The galleries increase in size as the distance from the entrance becomes greater.

Further particulars concerning this cave will be found in our report for 1908.

Mount Olympus National Monument.

On March 3, 1909, the day before he went out of office, President Roosevelt proclaimed the establishment of the Mount Olympus National Monument in the northwestern part of the State of Washington. This reservation was established after six years' advocacy by lovers of wild life and forests and so far as the motive animating its creation is concerned, it might be classified as a game and forest preserve, but it also preserves 600,000 acres of superb mountain scenery, including glaciers, valleys, streams, and forests, as well as the last survivors of the wapiti in that State.

National Forests.

Following is a complete list of the national forests with their acreage on January 1, 1910:

State or Territory.	Forest.	Headquarters of supervisor.	Proclamation effective.	Area.
				Acres.
Arizona	Apache	Springerville	Mar. 2, 1909	1,785,711
	Chiricahua[1]	Portal	July 2, 1908	287,520
	Coconino	Flagstaff	July 2, 1908	3,689,982
	Coronado	Tucson	July 2, 1908	966,368
	Crook	Safford	Aug. 27, 1909	779,893
	Dixie[2]	St. George, Utah	Feb. 10, 1909	626,800
	Garces	Tucson	July 2, 1908	644,395
	Kaibab	Kanab, Utah	July 2, 1908	1,080,000
	Prescott	Prescott	Feb. 1, 1909	1,541,762
	Sitgreaves	Snowflake	Mar. 2, 1909	1,470,364
	Tonto	Roosevelt	Feb. 10, 1909	2,110,354
	Zuñi[3]	Gallup, N. Mexico	Mar. 2, 1909	266,981
Arkansas	Arkansas	Mena	Feb. 27, 1909	1,663,300
	Ozark	Harrison	Feb. 25, 1909	1,526,481
California	Angeles	Los Angeles	July 1, 1908	1,350,900
	California	Willows	Feb. 25, 1909	1,114,904
	Cleveland	San Diego	Jan. 26, 1909	2,236,178
	Crater[4]	Medford, Oregon	July 1, 1908	58,614
	Inyo[5]	Bishop	July 2, 1908	1,458,444
	Klamath	Yreka	Feb. 13, 1909	2,094,467
	Lassen	Red Bluff	Mar. 2, 1909	1,373,043
	Modoc	Alturas	Feb. 25, 1909	1,471,817
	Mono[6]	Gardnerville, Nev.	Mar. 2, 1909	813,789
	Monterey	Salinas	July 2, 1908	514,477
	Plumas	Quincy	Mar. 2, 1909	1,407,053
	San Luis	Santa Barbara	July 1, 1908	355,990
	Santa Barbara	Santa Barbara	July 1, 1908	2,027,180
	Sequoia	Hot Springs, Tulare county	Mar. 2, 1909	3,079,942
	Shasta	Sisson	Mar. 2, 1909	1,754,718
	Sierra	Northfork	July 2, 1908	1,935,680
	Siskiyou[7]	Grants Pass, Ore.	July 1, 1908	37,814
	Stanislaus	Sonora	July 2, 1908	1,117,625
	Tahoe[8]	Nevada City	Mar. 2, 1909	1,931,042
	Trinity	Weaverville	Mar. 2, 1909	1,834,833
Colorado	Arapaho	Fraser	July 1, 1908	796,815
	Battlement	Collbran	July 1, 1908	759,002
	Cochetopa	Saguache	July 1, 1908	932,890
	Gunnison	Gunnison	July 1, 1908	945,350
	Hayden[9]	Encampment, Wyo.	July 1, 1908	84,000
	Holy Cross	Glenwood Springs	April 26, 1909	595,840
	La Sal[10]	Moab, Utah	Mar. 16, 1909	29,502
	Las Animas[11]	La Veta	Mar. 1, 1907	196,140
	Leadville	Leadville	July 1, 1908	1,184,730
	Medicine Bow	Fort Collins	July 1, 1908	659,780
	Montezuma	Mancos	July 1, 1908	1,175,811
	Pike	Denver	July 1, 1908	1,457,524
	Rio Grande	Monte Vista	July 1, 1908	1,262,158

[1] Total of Chiricahua in Arizona and New Mexico = 466,497 acres.
[2] Total of Dixie in Arizona and Utah = 1,102,665 acres.
[3] Total of Zuñi in Arizona and New Mexico = 670,981 acres.
[4] Total of Crater in California and Oregon = 1,119,834 acres.
[5] Total of Inyo in California and Nevada = 1,521,017 acres.
[6] Total of Mono in California and Nevada = 1,349,126 acres.
[7] Total of Siskiyou in California and Oregon = 1,302,393 acres.
[8] Total of Tahoe in California and Nevada = 1,992,127 acres.
[9] Total of Hayden in Colorado and Wyoming = 454,911 acres.
[10] Total of La Sal in Colorado and Utah = 474,130 acres.
[11] Total of Las Animas in Colorado and New Mexico = 196,620 acres.

STATE OR TERRITORY.	Forest.	Headquarters of supervisor.	Proclamation effective.	Area.
				Acres.
Colorado *cont.*	Routt	Steamboat Springs.	July 1, 1908	1,049,686
	San Isabel	Westcliffe	July 2, 1908	560,848
	San Juan	Durango	July 1, 1908	1,460,880
	Sopris	Aspen	April 26, 1909	655,360
	Uncompahgre	Delta	July 1, 1908	921,243
	White River	Meeker	May 21, 1904	970,880
Florida	Choctawhatchee	De Funiak Springs.	Nov. 27, 1908	467,606
	Ocala	De Funiak Springs.	Nov. 24, 1908	207,285
Idaho	Beaverhead[12]	Dillon, Mont.	July 1, 1908	304,140
	Boise	Boise	July 1, 1908	1,147,360
	Cache[13]	Logan, Utah	July 1, 1908	276,640
	Caribou[14]	Idaho Falls	Jan. 15, 1907	733,000
	Challis	Challis	July 1, 1908	1,161,040
	Clearwater	Kooskia	July 1, 1908	2,687,860
	Coeur d'Alene	Wallace	July 1, 1908	1,543,844
	Idaho	McCall	July 1, 1908	1,293,280
	Kaniksu[15]	Newport, Wash.	July 1, 1908	544,220
	Lemhi	Mackay	July 1, 1908	955,408
	Minidoka[16]	Oakley	July 2, 1908	619,204
	Nezperce	Grangeville	July 1, 1908	1,946,340
	Payette	Emmett	July 1, 1908	844,240
	Pend d'Oreille	Sandpoint	July 1, 1908	913,364
	Pocatello[17]	Pocatello	July 1, 1908	288,148
	Salmon	Salmon	July 1, 1908	1,762,472
	Sawtooth	Hailey	July 1, 1908	1,211,920
	Targhee[18]	St. Anthony	July 1, 1908	1,101,720
	Weiser	Weiser	July 1, 1908	764,829
Kansas	Kansas	Garden City	May 15, 1908	302,387
Michigan	Marquette	Au Sable	Feb. 10, 1909	30,603
	Michigan	Au Sable	Feb. 11, 1909	132,770
Minnesota	Minnesota[19]	Cass Lake	May 23, 1908	294,752
	Superior	Ely	Feb. 13, 1909	909,734
Montana	Absaroka	Livingston	July 1, 1908	980,440
	Beartooth	Red Lodge	July 1, 1908	685,293
	Beaverhead[12]	Dillon	July 1, 1908	1,506,680
	Bitterroot	Missoula	July 1, 1908	1,180,900
	Blackfeet	Kalispell	July 1, 1908	1,956,340
	Cabinet	Thompson Falls	July 1, 1908	1,020,960
	Custer	Ashland	July 2, 1908	590,720
	Deerlodge	Anaconda	July 1, 1908	1,080,220
	Flathead	Kalispell	July 1, 1908	2,092,785
	Gallatin	Bozeman	July 1, 1908	907,160
	Helena	Helena	July 1, 1908	930,180
	Jefferson	Great Falls	July 2, 1908	1,255,320
	Kootenai	Libby	July 1, 1908	1,661,260
	Lewis and Clark.	Chouteau	July 1, 1908	844,136
	Lolo	Missoula	Nov. 6, 1906	1,211,680
	Madison	Sheridan	July 1, 1908	1,102,860
	Missoula	Missoula	July 1, 1908	1,237,509
	Sioux[20]	Camp Crook, S. D.	Feb. 15, 1909	145,253

[12] Total of Beaverhead in Idaho and Montana = 1,810,820 acres.
[13] Total of Cache in Idaho and Utah = 533,840 acres.
[14] Total of Caribou in Idaho and Wyoming = 740,740 acres.
[15] Total of Kaniksu in Idaho and Washington = 950,740 acres.
[16] Total of Minidoka in Idaho and Utah = 736,407 acres.
[17] Total of Pocatello in Idaho and Utah = 298,868 acres.
[18] Total of Targhee in Idaho and Wyoming = 1,479,320 acres.
[19] Minnesota National Forest created by act of Congress.
[20] Total of Sioux in Montana and South Dakota = 249,653 acres.

State or Territory.	Forest.	Headquarters of supervisor.	Proclamation effective.	Area.
				Acres.
Nebraska	Nebraska	Halsey	July 2, 1908	556,072
Nevada	Humboldt	Elko	Jan. 20, 1909	1,158,814
	Inyo[5]	Bishop, Cal	July 2, 1908	62,573
	Moapa	Las Vegas	Jan. 21, 1909	390,580
	Mono[6]	Gardnerville	Mar. 2, 1909	535,337
	Nevada	Ely	Feb. 10, 1909	1,222,312
	Tahoe[8]	Nevada City, Cal.	Mar. 2, 1909	61,085
	Toiyabe	Austin	Feb. 20, 1909	1,678,714
New Mexico	Alamo	Alamogordo	Mar. 2, 1909	1,513,817
	Carson	Antonito, Colo.	Mar. 2, 1909	1,390,680
	Chiricahua[1]	Portal, Ariz.	July 2, 1908	178,977
	Datil	Magdalena	Feb. 23, 1909	2,869,888
	Gila	Silver City	Feb. 15, 1909	1,782,562
	Jemez	Santa Fe	July 1, 1908	944,085
	Las Animas[11]	La Veta, Colo.	Mar. 1, 1907	480
	Lincoln	Capitan	Mar. 2, 1909	677,790
	Manzano	Albuquerque	April 16, 1908	587,110
	Pecos	Santa Fe	Jan. 28, 1909	622,322
	Zuñi[3]	Gallup	Mar. 2, 1909	404,000
No. Dakota	Dakota	Camp Crook, S. D.	Nov. 24, 1908	13,940
Oklahoma	Wichita	Cache	May 29, 1906	60,800
Oregon	Cascade	Eugene	July 1, 1908	1,767,370
	Crater[4]	Medford	July 1, 1908	1,061,220
	Deschutes	Prineville	July 14, 1908	1,504,207
	Fremont	Lakeview	July 14, 1908	1,260,320
	Malheur	John Day	July 1, 1908	1,167,400
	Oregon	Portland	July 1, 1908	1,787,280
	Siskiyou[7]	Grants Pass	July 1, 1908	1,264,579
	Siuslaw	Eugene	July 1, 1908	821,794
	Umatilla	Heppner	July 1, 1908	540,496
	Umpqua	Roseburg	July 1, 1908	1,567,500
	Wallowa	Wallowa	July 2, 1908	1,750,240
	Wenaha[21]	Walla Walla, Wash.	Mar. 1, 1907	494,942
	Whitman	Sumpter	July 1, 1908	1,234,020
So. Dakota	Black Hills	Deadwood	Feb. 15, 1909	1,190,040
	Sioux[20]	Camp Crook	Feb. 15, 1909	104,400
Utah	Ashley[22]	Vernal	July 1, 1908	947,490
	Cache[13]	Logan	July 1, 1908	257,200
	Dixie[2]	St. George	Feb. 10, 1909	475,865
	Fillmore	Beaver	July 1, 1908	578,459
	Fishlake	Salina	July 2, 1908	537,233
	La Sal[10]	Moab	Mar. 16, 1909	444,628
	Manti	Ephraim	April 25, 1907	786,080
	Minidoka[16]	Oakley, Idaho	July 2, 1908	117,203
	Nebo	Nephi	July 1, 1908	343,920
	Pocatello[17]	Pocatello, Idaho	July 1, 1908	10,720
	Powell	Escalante	July 2, 1908	726,159
	Sevier	Panguitch	Jan. 17, 1906	710,920
	Uinta	Provo	July 1, 1908	1,250,610
	Wasatch	Salt Lake City	July 2, 1908	249,840
Washington	Chelan	Chelan	July 1, 1908	2,492,500
	Columbia	Portland Oregon	July 1, 1908	941,440
	Colville	Republic	Mar. 1, 1907	869,520
	Kaniksu[15]	Newport	July 1, 1908	406,520

[21] Total of Wenaha in Oregon and Washington = 813,342 acres.
[22] Total of Ashley in Utah and Wyoming = 952,086 acres.

STATE OR TERRITORY.	Forest.	Headquarters of supervisor.	Proclamation effective.	Area.
				Acres.
Wash. *cont*....	Olympic.....	Olympia.....	Mar. 2, 1907	1,594,560
	Rainier.....	Orting.....	July 1, 1908	1,641,280
	Snoqualmie.....	Seattle.....	July 1, 1908	961,120
	Washington.....	Bellingham.....	July 1, 1908	1,419,040
	Wenaha[21].....	Walla Walla.....	Mar. 1, 1907	318,400
	Wenatchee.....	Leavenworth.....	July 1, 1908	1,421,120
Wyoming.....	Ashley[22].....	Vernal, Utah.....	July 1, 1908	4,596
	Bighorn.....	Sheridan.....	July 2, 1908	1,151,680
	Bonneville.....	Pinedale.....	July 1, 1908	1,627,840
	Caribou[14].....	Idaho Falls, Idaho.	Jan. 15, 1907	7,740
	Cheyenne.....	Laramie.....	July 1, 1908	617,932
	Hayden[9].....	Encampment.....	July 1, 1908	370,911
	Shoshone.....	Cody.....	July 1, 1908	1,689,680
	Sundance.....	Sundance.....	July 1, 1908	183,224
	Targhee[18].....	St. Anthony, Idaho	July 1, 1908	377,600
	Teton.....	Jackson.....	July 1, 1908	1,991,200
	Wyoming.....	Afton.....	July 1, 1908	976,320
Total of 147 national forests in the United States				167,669,018
Alaska.....	Chugach.....	Ketchikan.....	Feb. 23, 1909	11,280,640
	Tongass.....	Ketchikan.....	Feb. 16, 1909	15,480,986
Porto Rico...	Luquillo.....	.....	Jan. 17, 1903	65,950
Grand total of 150 national forests.....				194,496,594

National Game Preserves.

The national forests and several of the national monuments are also, by their nature, game preserves. This is especially the case with the Yellowstone, Yosemite, Sequoia, Mount Rainier and Crater Lake national parks and Mount Olympus national monument. The following reservations, however, have been expressly created as national game preserves:

	Acres.
Wichita National Game Preserve, within the Wichita National Forest, Oklahoma. Created by proclamation June 2, 1905, under Act of Congress Jan. 24, 1905 (33 Stat., 614). Area.....	57,120
Grand Canyon National Game Preserve, within Kaibab and Coconino National Forests, Arizona. Created by proclamation Nov. 28, 1906, and supplemented by proclamation of June 23, 1908, and of June 3, 1909, under Act of Congress June 29, 1906 (34 Stat., 607). Area.....	1,492,928

Montana National Bison Range, Montana. Reserved by the President June 15, 1909, under Act of Congress May 23, 1908 (35 Stat., 267) amended by Act of Congress Mar. 4, 1909 (35 Stat., 1051). Area.	18,521

The government also has about fifty-six bird reserves in different parts of the country.

Respectfully submitted,

GEORGE F. KUNZ,

President.

Edward Hagaman Hall,

Secretary.

APPENDIX A

GIOVANNI DA VERRAZZANO

AND

His Discoveries in North America

1524

ACCORDING TO THE UNPUBLISHED CONTEMPORANEOUS CELLERE CODEX OF ROME, ITALY

BY
PROFESSOR ALESSANDRO BACCHIANI
OF ROME
1909

ENGLISH VERSION WITH INTRODUCTION BY
EDWARD HAGAMAN HALL, L.H.M., L.H.D.
OF NEW YORK
1910

VERRAZZANO MONUMENT, NEW YORK. See page 140.
(Inscription.)

GIOVANNI DA VERRAZZANO.

Per la verità secolare, per la giustizia della storia, questo monumento rivendicatore eresse Il Progresso Italo-Americano, Carlo Barsotti editore, la Colonia Italiana concorde, il VI Ottobre, MCMIX.

Anno 1909. America e Italia ricordano Giovanni da Verrazzano, Fiorentino, che primo Europeo precorrendo altro più fortunato dal quale ebbero il nome navigo queste acque le cui terre erano destinate per una delle citta capitali del mondo.

"There can be no doubt whatever as to Verrazzano's entering New York harbor in 1524." John Fiske.

INTRODUCTION.

While the three hundreth anniversary of the exploration of the Hudson river by Henry Hudson was being celebrated in New York State in 1909, by an interesting coincidence there came to light in Rome, Italy, an important document which confirms beyond a doubt the voyage of Verrazzano, the Italian navigator who sailed under the auspices of France in 1524, and who gave to the world the first description of the Atlantic coast of the United States and of the harbor of New York. This document is a hitherto unknown copy in Italian of Verrazzano's famous letter to Francis I describing his voyage to America. It is owned by Count Giulio Macchi di Cellere of Rome and was published for the first time, with able comments by Professor Alessandro Bacchiani of Rome, in the "Bollettino della Società Geografica Italiana," Fasc. XI, 1909, pp. 1274–1323.

With the kind permission of the public-spirited owner and the cultured commentator, I give in the following pages, for the first time in English, both the Cellere codex itself and Professor Bacchiani's critique. For purposes of comparison with the translation, the original text of the codex is given in Italian also.

The importance of this contribution to the history of American discovery and exploration will be more fully appreciated when we recall the status of the proofs of Verrazzano's voyage, as they have heretofore been known. When Verrazzano returned to Dieppe from the American coasts, he wrote to Francis I a letter dated July 8, 1524, describing his voyage. This original letter appears to have been irretrievably lost. At the same time copies of this letter written in Italian were sent to Verrazzano's relatives and friends in Italy. Hitherto, the documentary authorities for Verrazzano's voyage have been two such copies. The first was printed in Italian in 1556 by Ramusio in the third volume of his "Navigationi," and was printed in English in 1582 by Hakluyt in his "Divers Voyages." A copy of it may be found in volume I of the "Collections of the New York Historical Society

for the year 1809." The second was found many years later in the Strozzi library, and was subsequently transferred to the Magliabechian, now the National Library in Florence. It was first published in the "Collections of the New York Historical Society, Second Series, Volume I," in 1841, with a translation by Dr. J. G. Cogswell. The latter not only contained a Cosmographical Appendix which the former did not contain, but it also showed many variations from the text of the former.

In 1864, Buckingham Smith published a paper entitled "An Inquiry into the Authenticity of Documents concerning a Discovery in North America claimed to have been made by Verrazzano," in which he threw doubt upon their reliability. In 1871 J. Carson Brevoort came out as a champion of Verrazzano. Four years later, Henry C. Murphy renewed the attack on the genuineness of the documents. So deeply was Bancroft impressed with Murphy's argument that he omitted all reference to Verrazzano's voyage in his revised "History of the United States," and the editors of "Appleton's American Cyclopedia" also seemed to adopt Murphy's views.

Murphy's contentions, however, were not without able disputants, and the controversy was waged with much ability and feeling on both sides. Twenty years after the appearance of Smith's "Inquiry" detracting from Verrazzano's claim, Justin Winsor summed up the pros and cons in his "Narrative and Critical History of America" (1884) and showed the preponderance of evidence in favor of the authenticity of the voyage. Winsor's able review should be consulted on pages 16–28 of volume IV of his "Narrative and Critical History."

Although for the past quarter of a century, the majority of the best historical writers of America have believed in the proofs of Verrazzano's voyage, yet, such is the indelibility of a blot once cast upon a record, even though undeserved, that so late as 1909 some of the public prints, in referring to the erection of the statue of Verrazzano in New York city, could not refrain from alluding to the doubts cast upon the Verrazzano proofs as if they had been justified.

It is therefore a most happy event that at this time, when popular attention has been concentrated as never before upon the history of the discovery of New York harbor and the Hudson river, the new evidence, given by the Cèllere codex, comes to light. Its value consists not only in confirming the voyage itself, but also in supplying a wealth of names and details which were not previously known to exist. Count di Cellere and Professor Bacchiani have placed Americans under a large debt of obligation to them, the one for his generous act in making his rare historical treasure public property, and the other by his able analysis of the codex. Professor Bacchiani's explanation of the variations of the various Italian copies made from the original letter is so satisfactory that it would seem as if the last cloud of doubt on this question had now been dispelled.

It detracts in no degree from Hudson's laurels as the explorer of the Hudson river to accord full credit to Verrazzano as the first European actually known to have visited New York harbor. In my paper entitled "Henry Hudson and the Discovery of the Hudson River" following the Verrazzano document in this Annual Report to our State Government, I have endeavored to point out the important bearing of Verrazzano's voyage on Hudson's later voyage. If the claim in Hudson's behalf had been that he first discovered New York harbor, the recent Tercentenary celebration would have been unjustified. What Hudson did was to explore to its headwaters and make known to the world the resources of the noble stream at the mouth of which Verrazzano cast anchor eighty-five years before. Verrazzano, on the other hand, is entitled to credit for having given the first known description of the Atlantic coast of the United States and having been the first European known to have visited New York harbor. Count di Cellere, in his very courteous letter to the undersigned, dated Villa Cellere, Tor Pignattara, Rome, January 27, 1910, giving permission for the translation and publication of the Codex, characterizes this document very truly when he says: "I am very pleased to hear you take such a deep interest in the document,

which can well be considered the '*birth certificate*' of New York, and that the manuscript will be made known to the American government, as it proves to *a certainty when, how and who* first discovered the land that was to be the cradle of the great town of New York." It is with great propriety, therefore, that the monument of Verrazzano, erected by the Italian colony of New York in 1909, stands at the southern end of Manhattan island looking out upon the broad harbor; while the monument of Hudson rises upon Spuyten Duyvil hill, the first eminence of the mainland of New York overlooking the river twelve miles to the northward.

In the following pages I have followed Professor Bacchiani's use of *italics* and quotation points strictly. I have, however, taken three liberties with his system of references. First, he numbered each group of foot notes on a page by itself, beginning with No. 1, whereas I have numbered the foot-notes throughout the whole monograph consecutively from the beginning to the end. Second, in the text of the Codex, he numbered each fifth line of type and referred his foot notes to the lines, instead of which I have omitted the line numbers and placed in the text reference numbers corresponding to those of the foot notes. And third, he indicated by a series of twenty-six numbers, 1 to 26, the twenty-six very valuable additions to the Codex made by the contemporary annotator supposed to have been Verrazzano himself. In order to avoid confusion caused by two different sets of reference numbers on the same page, I have indicated these additions by the twenty-six letters of our alphabet.

I am under additional obligation to Count di Cellere for his kindness in revising the proofs of the following pages, thus ensuring the greatest possible accuracy. I take this opportunity also to express my appreciation of the valuable co-operation which I have received from our fellow member of the American Scenic and Historic Preservation Society, Mr. Frank L. Frugone of the "Bollettino della Sera" of New York and his daughter, Miss Marie Frugone.

Edward Hagaman Hall.

New York, March, 1910.

GIOVANNI DA VERRAZZANO

AND

HIS DISCOVERIES IN NORTH AMERICA.

During the last days of the past September [1909], while the Italian colony in New York was making ready the statute to Giovanni da Verrazzano, who first visited and described the coast of New England, a document hitherto unknown concerning the Florentine navigator came to light in Rome. It is not only a contemporaneous copy of the celebrated letter, or rather preliminary account, which at the end of his voyage he indited from his ship the *Dauphine* to the King of France, Francis I, patron and director of the exploration, but also rich, in comparison with the known texts, in such additions and variations as to change fundamentally that which was written about Verrazzano in the great *Raccolta Colombiana* (Columbian Collection), Rome, 1893.

Hitherto, as every one knows, the texts of this letter were two:

(*a*) The manuscript text of the National Library of Florence. It is a late copy of the end of the sixteenth century, by the hand perhaps of Antonio Petrei, from another copy, sent by one Carli, a Florentine resident in Lyons, to his father in Florence with a letter dated August 4, 1524. The manuscript belonged to the Strozzi and afterward to the Magliabechiana. It was edited by Greene in 1841 in the *Transactions of the Historical Society of New York,* by Arcangeli in 1853 in the *Archivo Storico Italiano* (Italian Historical Archives), volume IX, and by Berchet in 1892 in the *Raccolta Colombiana* (Columbian Collection), part III, volume II.

(*b*) The printed text, published in the third volume of the *Navigationi et Viaggi* (1556) collected by Giovan Battista Ramusio.

Also there is preserved a fragment at the Academy of Cimento and published in the *Raccolta Colombiana.* Taken from the Florentine manuscript.

Arcangeli, in the *Archivio Storico* cited, spoke of a copy inserted in a set of Ramusio belonging to the family of Verrazzano. The copy and the volumes were sold by the heirs of the extinct family, certain Vai di Prato, to the English captain Napier early in 1846. It is not known where it may now be found and what its value may be.

The new manuscript, which now for the first time we here publish, came by recent inheritance to Count Giulio Macchi di Cellere, who, with praiseworthy generosity, wishes to make known in these days the exalted merits of the Florentine captain.[1] Notwithstanding the researches made, the present owner has not been successful in establishing when the manuscript entered the Cellere house, but it must have been not many years ago, as in 1884 it formed a part of the Giovio-de Szeth library, derived from the famous Biblioteca Gioviana of Como, which, after 300 years of preservation and jealous care, was divided and dispersed in the past century.[2]

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[1] For the sake of brevity, we will indicate with the following abbreviations the four texts, in which we are now interested:

R = Roman codex (of Count G. Macchi di Cellere).

F = Florentine codex (Magliabechiano, XIII, 89).

C = Fragment owned by the Academy of Cimento.

Rm = Printed copy of III volume of Ramusio.

The first notice of the R. codex and of its discovery was given in the *Giornale d' Italia* (7 October, 1909).

[2] This Cellere codex, once Giovio, may thus be described:

Italian paper manuscript of the XVI century in 12 *numbered sheets, of which the first is cut in the right margin with heading on the recto (right-hand page) in the chirography of the XVII century:* "* * * of the Voyage of Verrazzano, noble Florentine in the service of Francis I, King of France, made in 1524, to North America." *The twelfth, blank on the recto, on the verso (back page) is described:* "Discourse on the Indies."

The text is in court hand, round-elongated: in the margins, at each reference mark, two of which point to the end, several annotations in the contemporary running style, all in the very same hand, differing from that of the text.

At the bottom on the verso of the eleventh sheet, an address in exactly the same hand, in larger characters: "A Leonardo Tedaldi o a Thomaso Sartini mercanti in Leone, mandaretelo a Bonacorso Ruscellay." (To Leonardo Tedaldi or to Thomaso Sartini, merchants in Lyons. To be forwarded to Bonacorso Ruscellai.)

In quarto, measurement 292 *by* 218, *not bound.*

Attached to the codex is a hand-written copy of the transcript of the F. *codex given by Arcangeli, following the publication made in the "Archivio Storico Italiano" (Italian Historical Archives),* App. IX., anno. 1853, *and a draft of a letter dated* "Milan, 4 August 1884," *without signature (but perhaps from Alfredo de Szeth), neither addressed (but perhaps sent to Cornelio Desimoni, the Genoese historian, of whom one remembers the memorial on Verrazzano inserted in the "Archivio Storico Italiano" of* 1877.

By like reasoning, it appears to me that this manuscript cannot be dissociated from the memory of the same Paolo Giovio (1483–1552).

The celebrated man from Como was a great collector of historical records, as much through love of collecting as through the necessity of study. As is known, his works, nearly all about the history of his own times, were derived from sources direct and full of authority, the research of which cost him the labor of many years and great expense. That he was also possessed of the geographical discovery which stirred up in the sixteenth century so much noise is not only presumable but is certain. The best picture of Columbus, for example, came from the *Museum Jovianum* established in his village of Como; extracts and opinions of his voyages in the New World we read in the *Libri Historiarum Sui Temporis* and in the *Elogia Virorum,* written in elegant Latin to illustrate the pictures collected by him and now scattered among the galleries of the Uffizi, Palazzo Pitti, Madrid and Berlin. In one of these Elogi is found an undoubted allusion to the letter from Verrazzano. Giovio, under the picture of Fernando Cortes, speaking of the isthmus now called Panama, adds: *In ea litorum plaga* (that is, in the farthest region that unites this isthmus to the extreme point of North America), *alterum se isthmum reperisse Verazanius florentinus referebat, qui de ea regione peculiarem Commentarium conscripsit* (Verrazzano, the Florentine who described the peculiarity of this region, reported he had found another isthmus in this quarter of the seashore.) What then is this commentary if not the letter to the French King, a copy of which was preserved in his library?

It may possibly be another copy, different from the Roman, it might be said. Well, the Cèllere codex, as we shall see later, is

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The letter says: "During the past year I undertook to illustrate, so far as I could, a manuscript which I possess which bears the title of 'Voyage to the Indies.'" *It ends with a request for the book of Murphy,* "The Voyage of Verrazzano," New York, 1875, *to be forwarded to the Braidense of Milan. But the study, apparently, never had any beginning.*

On the case is written: "Codice n.87: Biblioteca Giovio-de Szeth."

I thank Doctor Felice Tonetti, of the Archives of State of Rome, for his courteous assistance in the examination of the manuscript.

the only one which, in a special appendix, makes mention of this imaginary isthmus, which figures in the charts and in the globes of the sixteenth century derived from Verrazzano, without which nobody thus far has succeeded in establishing the origin. It ought not to have been difficult for the Bishop of Nocera to obtain the important manuscript either from the Verrazzano family or the Rucellai, either at Florence, or much more likely at Rome. Having passed thus to Como in company with other relics of the Giovio family, it remained unknown like many other documents of that inaccessible library, until the Count Alfredo de Szeth, to whom it came by inheritance[3] seemed to wish to interest himself in it. But the attempt was abandoned and the manuscript continued to remain unknown, while between one coast of the Atlantic and the other there raged the fiercest controversy about the authenticity of the voyage and the identity of the Florentine explorer.

The Cellere codex, which we may also call Giovio, was the work of two hands. One was of the amanuensis, which, in elegant and clear court-script, elongated round-hand, transcribes an original abounding in technical words and latinisms, and written with the accustomed running-hand perhaps not always intelligible; sundry interlineated corrections command confidence. The other hand, like the first, employs the cursive style quite common in the first decade of the sixteenth century, especially in the documents of the Tuscan merchants; it is written hurriedly and regardless of blots and erasures. The first writing contains the text of the letter identical with the *F.* and the *Rm.* except numerous and notable variations the importance of which we will see later; the other adds in the margins and between the lines unknown particulars, episodes, and observations entirely new. It is an original manuscript, as one can comprehend from the unequal, incomplete form, from the revisions, and from the graphical corrections. They are, it

3 The last of the Giovios, the Count Francesco, son of the illustrious scholar Giovan Battista, left three children, one of whom was Donna Chiara de Szeth, mother of the last owner of the manuscript. The celebrated library, a part of which, including the catalogues, became scattered, was also divided among the three heirs, married Szeth, Dattili (afterward Cerboni) and Mollinary. These and other facts I owe to the courtesy of Doctor Francesco Fossati and of Cav. Sac. D. Santo Monti of Como.

may be said, either annotations which later became put in order and interpolated in a more correct compilation, or curious and brief notes by some person interested in the voyage and in the person of the voyager.

To whom was this document directed? An address at the foot of the last page tells us: *"A Leonardo Tedaldi o a Thomaso Sartini mercanti in Leone. Mandaretelo a Bonacorso Ruscellay."* The document was, then, destined for Rucellai, probably in Italy, because the two merchants of Lyons mentioned were merely transmitters. Who Leonardo Tedaldi was we know from Cellini. In the well-known description of the voyage from Paris to Lyons in 1545 Benvenuto speaks of a traveling companion of his, Leonardo Tedaldi, who also lived in Lyons. From the voyage of the *Dauphine* to the voyage of Cellini twenty years passed, and one understands how the devilish artist and writer may have called Leonardo "the poor old man," who poorly defended himself from the violent hailstorm, so well described in the *Life* of the celebrated Florentine.[4]

We have not succeeded in finding out who Tomaso Sartini was; at any rate, he may have been, as is said of the rest in the document, one of the many Italian bankers, in large part Florentine, established in Lyons.

Through her relations, Lyons was, at that time, not only a great center of affairs with the Court of France and with the great French traders and privateersmen, but also the general headquarters of a kind of international financial syndicate, which the Italian bankers had established by means of an ingenious system

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[4] Eugenio Gamurrini speaks of some Tedaldi families who, they say, came from Poland to Fiesole (*Istoria genealogica delle famiglie nobili toscane e umbre*, Florence, 1668), but the tree did not survive beyond 1410. The branch which was transplanted in Florence was kindred with the most illustrious Florentine and Tuscan families. Lattanzio Tedaldi writes to his friend Nicolò Machiavelli concerning the possession of Pisa, and Bartolo was one of the ten in 1509 (Machiavelli, *Lett. famil.* ed. Alvisi, Florence, 1883, pages 182 and 192). Segni and Varchi speak of this Bartolo, enemy of Alessandro de' Medici.

In chapter VIII of his *Autobiografia*, Benvenuto, describing the hailstorm near Lyons, says: "Likewise one of them [one of the hailstones] fell on the poor old man Lionardo Tedaldi so that he, who, like me, was on his knees, fell flat on the ground. * * * I had more trouble to save him than myself."

of information and with relations with Venice, Florence, Rome, London, Nuremburg, Anversa, Seville and Lisbon. The syndicate was thus feared by Francis I, often short of money, and by Semblancay, his unhappy treasurer.

Notices less rare we have of the Rucellai. Buonaccorso di Iacopo was born in 1472, married Lucrezia di Battista Dini, and died in 1546. In 1515, already established in Rome, he rented for nine years, in the quarter of the bankers, the Alberini palace, (to-day Senni, in Via Banco di Santo Spirito) hardly finished at that time, where he established his bank. His partner was one Bernardo da Verrazzano, perhaps brother of Giovanni the navigator. In the census of 1526–1527 under Clement VII, a little before the sack of Rome, we find registered in the Rione di Ponte the families Alberini, Del Bene, Tolomei, Ricasoli, Pandolfini, Strozzi, Gaddi, etc., and also, near each other, the Rucellai and the Verrazzano.[5] In another curious document the two names are also associated. It is a long letter written to Pietro Aretino by Master Andrea, the painter, in which is depicted a satirical procession composed of the principal personages of Rome. In those days (1522) during the incumbency Pope Adrian VI, great processions were made. Now, in the catalogue of personages are discovered, one after the other, the names of Iacopo and Bonaccorso Rucellai and of Bernardo da Verrazzano.[6]

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[5] D. Gnoli, *Censimento di Roma, prima del Sacco,* 1526–27, in Arch. Soc. Romana di St. P. 1894. The renting of one of the finest palaces in Rome demonstrates the wealth of the said banking house of Verrazzano-Rucellai.

The lease of the Alberini palace which we found in the Archives of the Government of Rome says: *Julius de Alberinis, Roman citizen of the quarter of Saint Eustachius, has leased and rented to Lord* Bernardus de Verazano and Bonacursio de Oricellariis, *the house of himself the said Julius situated near the banks and in the street which is called Bank, by which one goes toward the Chancellery and in another by which one goes to the statue opposite the church of Saint Salvator de Lauro, which has not yet been arranged for the uses of a habitation,* etc. Courteous communication of Count Domenico Gnoli.

[6] The letter of Maestro Andrea says: "There were in apostolic vestments Janni Paulo dell' Anguillara, Pindaro, Luca di Borgo, Ortigliosa, Ricciardo Bechi and Giambattista Lilio and many others singing hymns, and back of them came similarly dressed like prophets, Piero del Bene, Pandolfo della Casa, Iacopo and Buonaccorso Rucellai, Bernardo di Verrazzano, other crowds of Florentines." This last is a group of Florentine bankers. See Vittorio Rossi, *Pasquinate di Pietro Aretino* (Palermo-Turin, Clausen, 1891).

There was close friendship and probably kinship between the Rucellai and the Verrazzano, two great and ancient families of Florence. While Buonaccorso and Bernardo were associated together at Rome, we find in Normandy with Giovanni, just then returned with the *Dauphine,* besides Gerolamo, another of the brothers of Verrazzano, a Zanobi Rucellai, *bourgeois marchand,* that is, a banker, *living at Rouen.* He is probably a Zanobi, son of Lorenzo and Francesca Benizzi, born in 1471. He gives guarantee for Giovanni in a law-suit brought by a certain Cornette of Dieppe in September, 1525; and in May, 1526, while preparing for his second voyage, the navigator, *captain of ships equipped to go on a voyage to the Indies,* names as his attorneys *Jerosme de Verrassenne, his brother and heir, and Zanobis de Rousselay.*. And in the map of Maggiolo, directly derived from the voyage of Giovanni, we find among the American localities one baptized with a Florentine name, an *Orto de Rucelay,* in honor of the great allied family and the celebrated platonic academy of Bernardo Rucellai where our navigator, about the age of twenty, with his brothers and the young Rucellai, may have listened to the Alamanni, the Martelli, the Cattani da Diacceto, and Nicolò Machiavelli, nearly all friends of France, because enemies of the Medici and believers in citizen's rights.[7]

No wonder then that one of the three Florentines living in Normandy sent by way of bankers, also Florentines of Lyons — the best means of correspondence of that time — a careful report of his adventurous voyage to relatives at Rome who were able to spread the news of his prosperous success in that great center. Which of the three could have been the sender? Evidently Giovanni. The writer of the address is the same who wrote the additions. In them the author shows a literary and scientific culture, humanistic education, knowledge of the voyage, memory of details, and command of the subject not unlike that of the writer of the

[7] A little later, in 1536, we find Buonaccorso, for the purpose of commerce, in Sicily, where he aided with money the exiles in the attempt to return to their fatherland. Probably he did see Florence again many times, that being a crime meriting all the rigor of the Medicean vendetta. (Passerini, *Genealogia della Famiglia Rucellai,* Florence, 1867.)

report. Writer and traveler are so much alike as to seem one and the same person.

Can the additions then be called autographic? It would seem that that document in favor of Gerolamo and of Zanobi Rucellai preserved in the archives of the Normandy parliament at Rouen bears the signature of Verrazzano. It would then be the only known writing of his hand. It is a small matter, but it would be worth the while to make some comparison. The various circumstances, notwithstanding the evidently improvised style of writing the annotations, lead us to admit that this writing of the letter to the King was corrected and explained by this hand of the discoverer. It may also have been sent to Rome after having served for the translation in French destined for Francis I. He may have received it at an inopportune time while Provence was in flames, the army of the Constable of Bourbon was master of the field, Marseilles was defended by the Roman Lorenzo Orsini di Ceri and 4,000 Italians, largely Tuscans, and already the war seemed decided which was to end at Pavia with the imprisonment of the French King for one year and the death on the field of Bonivet, of Pallavicino, of Sanserverino and of other patrons of the Italian voyager.

Where can the copy for the King, the disappearance of which gave Murphy and the other detractors of Verrazzano so much to think about, have gone? Maybe it was lost during the royal travels; perhaps it came into the hands of French voyagers, who, like Jacques Cartier some years after the Florentine died, again followed the paths he had tried.[8]

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[8] Verrazzano may have prepared his report during his return voyage with the aid of his diary (the *libretto* of which he speaks at the end of his letter) and the tracings of the pilot. Having finished the copy sent to the King he probably sent the various reports more or less complete to his relatives and friends in Italy. This would explain the differences in the texts. That the copy sent to Rucellai was destined only for intimate friends would lead one to credit the detail of acts not in accordance with the rules of politeness, of which "le male genti" (the bad peoples) of the northern lands afford an example. It is very true that little or no notice was then taken of certain coarseness of language. (Cfr. the additions to the chapter on "Terra di mala gente" in the letter to King Francis.) [Footnote continued on next page.]

The bad fortune which in a measure had always pursued the captain in life and after death was already beginning. Returned from his wonderful voyage, he wishes to speak with King Francis I; and on the road to Lyons, as he thinks to himself to start immediately upon another enterprise, he witnesses the defeat of France, the disappearance of his friends and protectors and the shattering of his hopes; he leaves the geographical and nautical records and, as Ramusio tells us, the siege of Florence destroys them; he personally contributes with a good sum to the expenses of his second expedition, and three centuries and a half after he will be accused as an adventurer without training or ability, a braggart, a fabricator of voyages which he never made, and above all a pirate fit for the gallows. Fit for the gallows? But the implacable American criticism has already hanged him for you, and can tell you the very day, October 13, 1527, and the name of the one who ordered the execution, Charles V himself. It is very true that in those very days and during the following months the real Verrazzano was all engrossed in the preparations for his second voyage which was to start out early in 1528, during which he was to lose his life; it is very true that he had nothing to do with the French pirate Jean Florin of La Rochelle, the one executed at Colmenar de Arenas near Toledo, but the statement from across the ocean suffices for our grave historians to assent to it without even a single reservation.

There is in France an Italian of great talent, of profound learning and of great authority who knows of the undertaking of the Florentine, who receives his confidences, and who shares in his dreams of glory. This man wants to immortalize him; he will write to the Most Serene [the Doge of Venice] for whom he is

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After the discovery of the new manuscript the statement comes that thus the codex *F.* as well as the *Rm.* contained the Italian translation of a report originally written in French, indeed bad French (Gravier, *Voyages de Verrazzano*, Rouen, 1908.) If one wants to draw deductions concerning the person who may have translated into French the report of Verrazzano for the King, one can point out Pietro Crignon who came from Dieppe, a man of letters and poet, friend of furnishers and promoters of expeditions and a voyager himself. (P. Margry, *Les navigations francaises et la rèvolution maritime du XIV au XIV siècle*, 1867.) Unless it was composed in Latin, the only scientific international language of that time, and was thus presented to the King.

envoy to the King; he will treat of it in a great work which he is preparing on the new world and its discoverers. But alas, the misfortune! Andrea Navagero — he is no other than the Venetian Ambassador and distinguished man of letters — dies suddenly in Blois at the age of 44 (May 8, 1529), his description of the new world becomes lost, and of the report to the Senate of Venice there remains only the summary with these words: "*That which a Florentine attempts with the aid of France with reference to the new lands and what he says he has found and what he hopes.*" And it will be necessary to wait almost four centuries before learning of a document coming from the hands of Verrazzano.

The sending almost contemporaneously of more copies of the narratitve to relatives and fellow citizens is so obvious that it is no longer necessary to recur to the analogous example of Amerigo Vespucci to explain it.

Those Verrazzano and Rucellai of Rome were not only relatives of the voyager but also bankers and business men. And who can tell but that those voyages were especially on matters of business? And to what extent may Verrazzano have thought rather of his relatives and not of the banking house of Rucellai-Verrazzano.

From Dieppe or from Rouen, after the document had come to Rome, Rucellai and Bernardo da Verrazzano must have given sufficient publicity, as it must have happened at Florence with the copy that the merchant Bernardo Carli[9] was sending from Lyons in August, 1524, twenty-seven days after the date of the report to his father Francesco. The fame of the *voyage of France,* as the expedition of Giovanni and his Norman mariners was called among cosmographers, shortly became so great that the document must have been greedily sought by Paolo Giovio who at that time was living in Rome, and from that time was preparing to illustrate the men and events of his time.[10]

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[9] In *F.* it is clearly written "Bernardo." Nevertheless, in Greene's edition "Fernando" was printed by mistake. And from that time on every one has repeated the error, including the *Raccolta Colombiana.*

[10] The *terminus post quem* of the codex *R.* is naturally given from the date of the report, that is, July 8, 1524. The *terminus ante quem* is given from the map of Visconte Maggiolo of 1527. But that they found noted in the *R.* document destined for Florentines, the only baptisms of localities with French

Have we then a semi-autographic manuscript? Everything leads us to believe it, even though this induction must remain in the state of a hypothesis until a writing rather extensive and certain can be found and wholly from the hand of the navigator — a hope, at present at least, quite faint.

However, the superiority of the new text over *F.* and over *Rm.* is undeniable. Only now can we understand and judge what the discoverer saw, found, studied and how he knew how to tell it.

We record briefly the vicissitudes of the voyage.

The expedition commanded by Verrazzano included originally four ships and was destined to look for a passage across the great expanse of land which already appeared to interpose between Europe and "the blessed shores of Cathay" or oriental Asia, where the countries of spices, gold, gems and legends were found.

In September, 1522, a caravel half wrecked by the winds and waves of all seas but destined to great fame arrived at San Lucar de Barrameda at the mouth of the Guadalaquivir. The *Victoria,* which was returning after three years, was the first ship to complete the circumnavigation of the world, and its mariners, among them the Italian Antonio Pigafetta, were the companions of Magellan. It was a great event which surprised all geographers, navigators and governments, and occupied every one's attention. To discover and to encircle the girth of the world, as they then said, was already a great deal; but the scientific conquest was not enough and demanded practical interest. Magellan discovering the desired passage to the sea of India across the strait named from him had enlarged the domains of physical geography, but economic geography had gained nothing by it. The new way was of such southern latitude that it would never have become a suitable way for commercial traffic between Europe and oriental Asia.

It was necessary to turn another way, and thus reawaken the desire for the passage to the north. The Florida of Ponce de Leon

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names and only one Tuscan name *l'Annunciata,* instead of many which appeared in the Maggiolo (Carregi, Capo San Gallo, La Certosa, L' Orto de' Rucellai, etc.) proves an elaboration after our codex, which very likely is not later than the same year of the voyage, that is, 1524.

and the Spaniards was known a little, the Labrador and the seas of abundant fish were also known a little. Who can tell what there may be between the two extremes? An archipelago or a continent? And if a strait should be found there, one could in a hundred days of navigation arrive at "Scipango," Japan, "Catai," China, and the Moluccas. A hundred days? We, who already find the two weeks of the Transiberiana too long would call them everlasting; but at that time, in comparison with the twenty months required by Magellan, they seemed flights of dreamers.

Fortunate then would be the one who should first come into possession of the blessed port! And behold, Spaniards, Portuguese, French, English, prepared themselves for the experiment. The contest will last many, many years with a negative outcome; but the New World will come out of it known in its principal outlines.

France made the first move, and through the work of an Italian. The French court at the time of Francis I seemed like an Italian court: Italian the princesses, from the Regent Louisa to the future Queen Catherine dei Medici; Italian the artists from Leonardo to Cellini, from Giovanni Giocondo to Andrea Solario; Italian the men of letters from the Florentine Luigi Alamanni to the Genoese Teocrene; Italian the generals from Pallavicini to Sanseverino, from Strozzi to Renzo da Ceri and Sebastiano Montecuccoli, cupbearer to the Dauphin; Italian the business men who supplied with money the royal coffers when they were empty; Italian the cosmographers; and finally Italian the great navigator.

France was ripe for such an expedition. Bretons of San Malo, Normans of Dieppe and Honfleur used to cross the Atlantic for a decade to the fisheries of the Baccalaos or of the Merluzzi. At Dieppe this fervor for bold navigation for fish, for spices, for the discovery of a new way to India, and finally, later, for colonization, was fed by a wealthy family of outfitters, the Angò. They directed private enterprises, they had combined a large number of merchants of Dieppe and Rouen, they could collect without trouble twenty or thirty ships to send into the Atlantic and the Indian sea, and they surrounded themselves with mariners and scholars,

several of them Italians. Among them Giovanni da Verrazzano, to whom Florence, the great center of humanistic and cosmographic studies, had given the teaching and the Mediterranean the experience of navigation.

One must believe that Francis I and his favorite Guglielmo Gouffier, called Bonivet, appointed Admiral of France since 1515, were in great haste to send an expedition in search of the wished-for passage. Indeed, five months after the return of the *Victoria* of Magellan, preparations for the voyage were hastened in the port of Dieppe. The longing of Verrazzano, whose sleep was troubled by the fortune and glory of his fellow citizen Amerigo Vespucci, harmonized with that of the King, suddenly inflamed with the proposition of putting an end to the Iberian monopoly of the lands beyond the seas.

The preparations are secret because there is great jealousy between the governments on account of these enterprises, but they do not escape the watchful eye of the Portuguese ambassador in France, Giovanni da Silveira, who notified his King, John III, that Maestro Giovanni Verrazzano *goes to discover Cathay,* but he cannot tell when he leaves, because some dissension between himself and his men has occurred. And one of the secret agents of Portugal scattered among the ports of France sends word to Lisbon that that Florentine had proposed to King Francis to discover a country in the orient which the Portuguese had not yet seen, and that in the ports of Normandy ships were being prepared with the open aid of the admirals of the coast and the dissimulated help of Francis I. Perhaps the ships will go to Brazil. It is necessary to make haste; to protect that country and to give instructions to the ambassador.[11]

The Portuguese spy was right. The crown of France, which had as yet left the voyages of exploration to private initiative, establishes with Verrazzano a precedent entirely new.

The expedition was ready toward the middle of 1523, but because of a storm it was at first reduced to two ships, then, through

[11] F. d'Andrada, *Cronica do rey dom Joao III,* Coimbra, 1796.

political vicissitudes, it was despatched with the two remaining by Admiral Bonivet toward the Spanish shores, until reduced to one only, the *Dauphine,* it set sail across the ocean.

It was the 17th of January, 1524, and the place of departure was a deserted rock near the island of Madeira, probably the present island Porto Santo. Such a place was chosen secretly to escape molestation by the Portuguese and the Spanish, rivals and enemies. The ship was victualled for about eight months; it was calculated then that they would return to France no later than August.

On the 10th of February the *Dauphine,* a caravel of a hundred tons, with a crew of fifty men, had covered 800 leagues, that is 3,200 Roman miles, of successful navigation toward the west. Hardly fourteen days after, the 24th of the same February, it ran into serious danger through a furious storm.

It turned its course toward the northwest and pursued another 400 leagues or 1,200 miles and on March 7th saw land. They were, according to Verrazzano's calculation, in 34 degrees north latitude (in *North Carolina,* perhaps near Wilmington). The means of observation were then very imperfect and led to errors as great as one or two degrees. Nevertheless we can believe that the ship arrived rather to the south than to the north of Cape Fear.

The weather was rather stormy. The ship turned its prow to the south to look for a good port, but after 200 miles (along *South Carolina*) Verrazzano prudently turned around to the north because he became aware of nearing Florida and Temistitan (or Mexico) the great Spanish possession. If the ships of Charles V should run into the *Dauphine,* the little ship is destroyed.

Having returned to 34 degrees, Verrazzano makes his first landing and names the region *Selva di Lauri* (Woods of Laurel) and the next *Campo di Cedri* (Field of Cedars).

The coast turns to the east and then to the north. We are at Cape Hatteras and Pamlico Sound. Does Verrazzano take this expanse of water for another ocean which extends beyond the bank? So must we believe according to what we learn from the addition

(note *h.*) of the codex *R.*, from the map of Maggiolo, from that of Gerolamo da Verrazzano, brother of the voyager, and from all their deductions. The supposed isthmus is named after the explorer *Verrazzanio* and the land in the vicinity *Annunciata.* He reached it March 25, the feast of the Annunciation and the beginning of the Florentine year.[12] In the maps after the death of the navigator, the supposed sea which would have covered in large part the center of the United States as far as the Pacific will also be called Verrazzanio and Verrazzania also the wide expanse of land north of the supposed isthmus.

The coasts of the Virginia of to-day and of Maryland are poetically named *Arcadia.* There the expedition remains for three days.

The *Dauphine* turns to the northeast, coasts along the present States of Delaware and New Jersey, calling the coast with the names of *Cardinal di Lorena,* of Admiral *Bonivet,* protector and chief hierarch of Verrazzano, of Count di *Saint Pol,* all high functionaries of the court of Francis I. As will happen to other navigators coming after him, he noticed neither the bay of Chesapeake nor that of Delaware.

And further on he enters into the bay where New York will rise. He baptizes it as the gulf of *Santa Margherita* from the sister of Francis I. The river Hudson is called *Vendôme* after the Duke of the same name, prince of the blood, and all the surrounding territory *Angoulême,* the title borne by Francis I when he was heir presumptive to the crown.

A sudden wind forces the *Dauphine* to depart. It passes before a triangular island (Block Island?) which will be called *Aloisia* from Louise of Savoy, regent and mother of the King, and on the 22d of April enters the beautiful port called later *Refugio* (to-day Newport).

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[12] Apropos of the Florentine calendar, we note the curious uncertainty which the addition "note a" reveals. It was written first 1523; later was corrected. It is an error which reveals the handwriting of a Florentine in the writer of the notes. In fact, the 17th of January for the calendar *ab incarnatione* in use in Florence belonged as yet to 1523. But the writer finds himself in France, and corrects it according to the common use of the year *a nativitate.*

Here is the longest stop. After fifteen days of rest, on the 6th of May, the Captain resumes coasting the continent as far as Terra Nova, a region already known to French sailors.

The shoals of Cape Cod have the name of *Sirti d'Armellino,* and the promontory itself is dedicated to *Pallavicino,* that is, to Gian Ludovico Pallavicini, Marquis of the Major Court and General of France.

The weather is favorable. He finds numerous little islands of Maine (he counts 32) and the larger ones he baptizes with the name of *Le Tre Figlie di Navarra* (the Three Daughters of Navarra).

We are now in June and provisions begin to fail. The *Dauphine* turns its prow to the known path followed by Breton and Norman fishermen and returns to Dieppe in the first days of July.

* * *

Let us see now how this account is presented in the three texts:

The text *F.* is written by a man of slight culture, who, contending with an original of slight clearness in writing, copies and transcribes in a blundering way, not bothering about the enormous absurdities which he makes the author utter, nor the senseless words, the sentences without beginning and without end, which he puts on paper, assembling a combination of inexplainable riddles to the despair of future geographers. The American Murphy, the careless and heartless derogator of Verrazzano, was right at least in this, in denying Verrazzano's paternity of such stuff.

Rm. takes care that the sense runs along and the form runs even better: he has under his eyes a very good copy, but he is seized with a mania for paraphrasing; through a mistaken love of modernism, he changes words, sentences, constructions, and often changes the sense and adds details not even dreamed of by the author. Finally, he suppresses a whole part, the one which treats of cosmography.

To get an idea of the beauty (!) of *F.* it is enough to run through the variations which I record at the bottom of the pages of

the new text. *R.* says in reference to the tempest of February 24: *dalla quale col divino aiuto et bontà della nave dal glorioso nome et fortunato fato.* (From which with the divine aid and goodness of the ship, by its glorious name (that is of the Dauphin of France, then Francis, who was to die in 1536) and fortunate destiny.) And *F.*, reading badly, changes it thus: *"col divino aiuto et laude del glorioso nome et fortunato fatto!"* (with divine aid and praise of the glorious name and fortunate achievement.)

We have not found *porto o sito* (port or place) to land, says *R.;* we do not find *porto prossimo* (near port) reads *F.* The *simetria* (symmetry) of the human body says *R.;* the *similitudine* (likeness of the body) interprets *F.*

In the first land visited is found *belle campagne et planitie* (beautiful fields and plains) (*R.*); the plains actually become *provincie* (provinces) in *F.* Provinces in savage countries! And why not give us also the names of the prefects?

We have not stopped long in the first land, observes Verrazzano, because the people were few and the ship anchored in high sea. *F.* reads: *per esser suta l' onda alla piaggia,*— words without any meaning at all.

Et non creda, Vostra Maestà, says Verrazzano further, *che queste campagne siano come le aspre solitudini della Scizia pieni di rudi alberi* (And do not believe, Your Majesty, that these lands are like the wild solitudes of Scythia full of rugged trees.) The "rudi alberi" become *"viti et albori"* (vines and trees.) The cold plains of northern Europe full of vineyards is a fine miracle of botanical geography.

The description of the viti (vines) is the cause of other mistakes. In *F.* is written: *Queste viti produrrebbero ottimi vini, perchè più volte il frutto di quelle beando, veggiendo suave e dolcie . . .*" (these vines will produce excellent wines because oftentimes on drinking their product, finding it sweet and agreeable.)

The grape in April in Maryland? How has he fished out such nonsense, ask the critics. Instead, in *R.* we read: *produrrebbero*

ottimi vini, perchè più volte il frutto secco veggiendo soave e dolce, etc. (will produce excellent wines, because oftentimes finding the dry fruit sweet and agreeable.)

Verrazzano had seen and tasted the dried grape. For example, Henry Hudson in 1609, as Benjamin Da Costa records, happened to taste the raisins offered him with pumpkins and peltries by the natives; and the grape was judged good and sweet by him.

Al tempo estivo nel quale fummo (in the summer time, in which we were) writes *F.;* and the American critics exclaim, what a liar! How could it be, if it were only the end of April! But Verrazzano had written: *al tempo estivo al principio del quale noi fummo* (in the summer time at the beginning of which we were.)

Speaking of the soundings of a good coast, Verrazzano says: a quattro o cinque passi presso la terra si trovano 20 piedi d'acqua e la profondità cresce con misura uniforme man mano che la costa si allontana, (at four or five paces from the land were found 20 feet of water and the depth increases with uniform measure little by little as the shore recedes.) And *F.: Cresce tal proporzione uniforme alla profondità* (increases in proportion uniform with the depth.)

How many discussions on the foolishness of *F.! Sono di color bianchissimo alcuni pendono più in bianchezza, altri in color flavo* (They, the natives of Refugio, that is Newport, are of a very whitish color, some inclined to whiteness, others to a yellow color.) "If they are very white, how can they tend to whiteness," says Murphy. The original, instead, had *bronzino* (bronze) which was read as an abbreviation of "bianchissimo."

"Nè conoscono *una prima* causa o motore" (they know not a first cause or author) observes Verrazzano, apropos of the irreligion of the natives. What do they make of this in *F.?* They know not *una per una* (one by one) cause or author!

The geographers have commented on the mysterious reasoning toward the end of the cosmography. "Se lo equestre di detta

terra in parte corrisponde al lito marittimo, non è dubio di grandezza la Asia exceda" (if the horseman of said land,— the new world — in part corresponds to the seashore, there is no doubt that its greatness exceeds Asia.) How the matter of horsemen and horses comes in, nobody could certainly tell. But Verrazzano had written instead *sito terrestre,* signifying that if the area of America was extended in proportion to its coastline, the new continent must be larger than Asia.

And besides, *F.* makes the craziest punctuation and the strangest confusion, which reads *cose* (things) for "case" (houses); *stiano* (that they stand) for "stimiamo" (we think); *verzura* (verdure) of the land for "versura," that is to say, turn, *the promontory of the Cape* of Good Hope; *esperienza del sito* (experience of the situation) for "opulenza del luogo" (the wealth of the place); *Hyadi* for the constellation of the Pleiades; *aere* (air) for "area"; *territorio* (territory) for "tenitore" (holder) of the anchor, that is, the good bottom of the sea which held the anchor; the *visi barbari* (barbarous faces) instead of "vizi pieni" (full of vices); the *vive pietre deauralee* (!) (living stones deauralee!) for "varie pietre cerulee" (various blue stones;) *puntati* (pricked or tattooed) for "pintati" (painted), that is, the natives painted on the faces according to the custom of the red races; *óbligo* (duty) for "ablìgo," that is, shelter, (cf. French the word *abri*); *freso* for "freto," that is, strait.

Before this *freso* the shrewdest interpreters stopped; the candid Arcangeli explained it as "frega o fregola," (ardent desire) Imagine the good sense which they got out of it: America which is not without ardent desire to penetrate the Pacific Ocean!

Hugues, in his study on the *Parte Cosmografica del Verrazzano* (Turin, 1894), found inexplicable the next to the last sentence of the cosmography. He is entirely right.

Verrazzano has perhaps from the first the sure intuition that the new lands are neither an immense archipelago nor appendages of Asia or of Europe, but form a great isolated continent between

two seas and (it being necessary to concede something to imagination) with lands extending to the polar regions in such a way as to shut off the two oceans. And he says: "All this land or new world, ... *not adjoining* Asia *nor* Africa — which we know with certainty — may join Europe by Norway and Russia. Which would be false according to the ancients."

And in *F.*: "All this land . . . *adjoining* Asia and Africa, which we know," etc. Exactly opposite to that which the author maintains.

And not less obscure and incorrect does Hugues regard the sentence preceding in which the purposes of the voyage are spoken of. I wanted to reach oriental Asia — says Verrazzano — not imagining that there existed the impediment of the new land, which I found: and if by way of hypothesis, I planned to find land, I was thinking of finding some strait in it by which to penetrate to the eastern ocean (the Pacific.) And why this hope? Because all the ancients had said that the western ocean, that is the Atlantic, was all one with the eastern of India, that is, the Pacific.

These are only the remains of the mediaeval mentality and of the intellectual tyranny of *ipse dixit*.

Aristotle on various similar occasions had said so, and so it must be. But Verrazzano is a son of the Renaissance: the authority of writers is of no value before the truth. "This opinion" (that is, of the unity of the two oceans,) "is very contrary to the moderns *and to experience* untrue." The experimental method triumphs in the modern man. Indeed, this new land of which the ancients did not know is not merely an island, but a great continent which separates entirely the two seas.

This clear, luminous reasoning, which proves the probity and depth of mind of Verrazzano and which upsets the prejudices of the schools and gives the sure deduction of thirty-two years of exploration, is absolutely unintelligible in *F.*, so many are the words omitted through distraction, or made unintelligible by alteration;

and lacking for this part the help of *Rm.* which omits the cosmography, with that one text we remain in the dark.

If one has not had enough of this, let him read the variations and he will find among them others no less striking, like those ports, which, instead of being ricettacoli di navigli (shelters for ships) are *ricettacoli d'animali* (shelters for animals.) No, nothing animal-like about the Florentine manuscript; there is only the sixteenth century amanuensis.

And yet, on the basis of this magnificent mass of stupidity was made the posthumous trial of Verrazzano in the last century; and even the acute Desimoni, who also realizes the incorrectness of the manuscript, does not spare some shot against the poor captain, verily born under an unlucky star.[13]

* * *

The text of Ramusio is another matter. The editor is a very cultured person, a diplomat of the Most Serene, having a practical knowledge of navigation and affairs, and does not let these stupidities escape him. But in the craze for embellishment in his way and of modernization, he commits not a few infidelities. One of the most serious is in the very first lines. Our explorer says to the King: "Avrà V. Maestà inteso il *descorso,* che facemmo con le navi *Normanda* e *Delfina* armate in guerra, per le coste di Spagna" (Your Majesty will have learned of the voyage which we made with the ships Normandy and Dauphine armed for war along the costs of Spain.) In the Ramusio instead we find: "Poichè (le due navi) furono ben armeggiate, per i liti di Spagna ce n'andammo in corso: il che V. M. avrà inteso per il profitto che ne facemmo." (After they — the two ships — were well

[13] The lamented Genoese historian supposed that *F.* was an adaptation of *Rm.* made by some presumptuous person who had thought to embellish it by substituting elegant words: *flavo* for giallo (yellow), *quarto elemento* (fourth element) for fuoco (fire), *pomi luculliani* (Lucullian apples) for mele appie (which instead are cherries), *etiopi* (Africans) for Saraceni (Saracens); *nero* (black) for berrettino (rascally), etc. It was, as the reader is aware, precisely the opposite; a homogeneous text of a very original character was altered by an ignoramus, as the transcriber of *F.* was, and by a rhetorician such as the embellisher of *Rm.*

armed, we took our course along the shores of Spain: which Your Majesty will have learned by the profit which we made thereby.)

Profit! Foray! Behold the pirate, exclaim the detractors who by all means want Verrazzano hanged by Charles V with the noble intention of denying him his discoveries; because, if Verrazzano was that certain Florin who actually did end on the gallows, he could not be on the shores of America while he was preying upon Spanish galleons loaded with the treasures of Montezuma.

Even if Verrazzano had departed on a war of piracy, it would not be a reproach. There was full hostility between France and Spain and the naval operations aimed above all to damage the enemy's commerce. But in reality *descorso* is not to go a-pirating and Verrazzano did not speak of any profit, that is plunder, neither large nor small. *Descorso,* as we find repeated in the same letter in the language of Verrazzano, signifies neither more nor less than the *royage* of our mariners.

"Di poi con la *Delfina* sola si fece deliberazione scoprir nuovi paesi, per non lasciar imperfetta la già cominciata navigazione. Il che intendo ora a V. Maestà raccontare, acciocchè di tutto il successo sia consapevole." (Later with the Dauphine alone the discovery of new countries was considered, so as not to leave incomplete the navigation already commenced. The which I intend now to relate to Your Majesty, so that all of the success may be known) How many useless and inexact words. Quite different is the beautiful simplicity of Verrazzano: "Di poi la nuova disposizione con solo la *Delfina* in seguire la pristina navigazione: dalla quale essendo ritornato dirò a V. M. quello che abbiamo trovato," (later the new disposition with the Dauphine alone to continue the first Navigation: from which, having returned, I will tell Your Majesty what we have found.)

The order then came from the King and was not an improvised plan, because as we know from the Portuguese ambassador in France the expedition was prepared seven or eight months before in order to find a passage across the new world and to reach

Cathay, that is, Eastern Asia, by a waterway shorter than the one of Magellan.

Further on Verrazzano says: Seeing the shore-line continue toward the south (that, therefore, they were near Florida, a Spanish possession) so as not to fall among enemies, in view of the weak force of the *Dauphine* (a caravel of about a hundred tons) I returned to coast northward until I found myself back to the point which we had touched at first. *Rm.* says instead: having seen that the land led toward the south we decided to return where *we found ourselves in the same difficulty* (nella medesima difficoltà ci trovammo). They were not "le medesime difficoltà" but il medesimo punto (the same point), that is, the 34th degree of latitude: the return was caused by the fear of the Spaniards and not at all because the coast turned to the south rather than to any other cardinal point.

The natives of Porto Refugio are very healthy. *"Se da vulnere sono oppressi,* that is, if they are injured, (writes Verrazzano,) senza fremiti, that is, without crying out with pain, si sanano da loro con il fuoco," they cure themselves with fire. It is a forerunner of antisepsis. But *Rm.:* "Se pur alle volte sono oppressi da qualche infermità, senza medico (*sic*) da lor medesimi si sanano" (if sometimes they are stricken with some infirmity, without a physician they cure themselves by themselves alone.) That *vulnere,* finally, has been the cause of torment to all the copyists. *Rm.* changes it; *F.* jumps over the whole passage. The same amanuensis of *R.* had first written "*male*" (ills); the author replaces it (vulnere.)

"At the end of their lives they are accustomed to mingle weeping with singing for a long time." (*Rm.*) The dying ones who sang! But in *R.:* "The relatives, one with another at the end of their life, use the Sicilian lamentation mingled with singing lasting a long time." It is a correct observation of demo-psychology that escapes from *Rm.* and becomes nonsense deprived of the addition of "Sicilian." It is indeed the *ripitìu* of the Sicilian

women-mourners, quite different from the Sardinian-Corsican *voceri* inspired more for vendetta than by sorrow.

One of the kings or *sachems* of Refugio had taken pleasure in visiting the *Dauphine* and remaining there, imitating the habits of the white men. "Imitando nostri habiti," (imitating our customs) says *R.*, but *Rm.*, thinking that abiti signified clothes, says "prendeva piacere di vedere li nostri habiti e gustare li nostri cibi," (he took pleasure in seeing our clothes and tasting our food.)

The dates are different: it dates the tempest on the 20th of February instead of the 23rd; the departure from Refugio the 5th instead of the 6th. Verrazzano notes that the heights of Maine *vanno diminuendo verso il lido del mare* (grow smaller toward the shore of the sea;) *Rm.*, changing the punctuation, interprets: *continuando* dietro il lido del mare, discoprimmo," etc. (continuing back of the shore of the sea we discover) and one understands nothing more.

Rm. is possessed with an abundance of decorative adjectives. The "magni edifizi" (magnificent buildings) become *grandi* e *superbi* (great and superb); each bruta creatura (that is, each animal) is promoted to *inumana e discortese* (inhuman and discourteous); the color nero (black) is transformed to *berrettino* (cap)* color. He calls the inhabitants *Indiani* (Indians) where *R.* uses the generic and more exact designation of "genti" (peoples); puts *fogli di carta* (sheets of paper) in place of *fantasie* (trinkets) to offer to the Indians, *mele appie* instead of cherries; omits that the dwellers of modern Maine (meaning the ancients) are lax in morals, and grants himself other liberties.

The biggest crab is fished up by *Rm.* right in the port of Refugio. Verrazzano narrates that often one of the two kings with his queen and suite went to visit the white men in their ship. Then, whether it was because the native chief so wished it or because the too prolonged proximity of the French gallants to her damsels did not please Her Majesty Pelle Rossa (Red Skin),

* Count di Cellere explains that "berrettino" refers to the black color of the berrettas or caps worn by priests.—Translator.

mandava la Reina con le sue damigelle in una barchetta molto leggera a riposare a una isoletta (he sent the Queen with her damsels in a very light boat to stay on a little island.) By *Rm.* the *mandava la Reina* is interpreted by *madama la Reina,* (madam the Queen!)

* * *

What relation then between the three texts? All three seem independent of each other, that is, derived from different copies. *Rm.* keeps close to *R.,* has nearly all the numerous words and phrases we find lacking in *F.* but not the additions, and although it is known that Giovio and Ramusio were in correspondence for their publications it may be excluded that *R.* served the Venetian press. The latter could not even be derived from *F.* because hardly any of the numerous gaps which are found in this are met in *Rm.*

F. has nothing in common with *R.* It has not the added notes and shows serious omissions in the text other than the mistakes and the other defects noted. Nevertheless it has the unique merit of filling up a rather long omission which escaped the amanuensis of the *R.* codex.[14]

R. renders the text complete, and what counts more, reveals the physiognomy of Verrazzano as a writer.

Taking away the artificial beauty of *Rm.* and omitting the deformities of *F.,* a singular literary document comes to light. The words and the period point at once to the humanistic culture and to the Latin language. One would say that the letter was written

[14] Also the amanuensis of *R.* fell into some error. He did not understand *eclissi, vulnere,* mare orientale *de India,* he transcribed badly some of the figures of the Cosmography, he lets *prussi* slip out for *cupressi,* and at the end he jumps almost five lines.

Suppose that there is nothing in common between this court-script and running-hand, which belong respectively to two different hands, who may have been the copyist of Verrazzano? Italians abounded that year in France. There was Alamanni, there were the Rucellai, there was even Gerolamo da Verrazzano who, as a cosmographer, had an aptitude for writing. A comparison between the letter of Gerolamo to the Propaganda Fide and some details of *R.* would make me believe it, but as yet it is too little.

in Latin on the model of the *Germania* of Tacitus: the same vigor, the same composition, the same conciseness sometimes forced to the detriment of clearness.

He calls the winds classically. *Subsolano* (*E. S. E.*), *Zefiro* (W.), *Aquilone* (N. N. E.), *Coro* (W. N. W.), *Austro* (S.); the cardinal points: *meridie* (south,) *septemtrione* (north,) *oriente* (east,) *occidente* (west;) geographical details: *planizie* for "pianure" (plains,) *sino* for "golfo" (bay,) *sirti* for "bassi-fondi" (shoals,) *freto* for "stretto" (strait,) *promontorio* and never "capo" (cape,) *scopulo* is only once "scoglio" (rock,) the peoples *Etiopi* for Africani (of northern Africa is meant), *Regioni Sinare* for la Cina, that is the "regiones Sinarum," *Scizia* (Scythia) for Tartaria, *Cimbri* for Scandinavia, *Gallia Cisalpina* (Cis-alpine Gaul) for Italia Settentrionale (Northern Italy), *Illiride* for Schiavonia, *Syria* and not Sòria as was commonly said then, etc.; and then *classe* and not armata or flotta (armada or flotilla), *lustrare* and not percorrere (explore) *quiescere* and not riposare, (to remain,) *propinquo* and not vicino (near,) *venatione* and not caccia (the chase), *egritudine* and not malattia (illness,) *opulentia, divitie* and not ricchezze (wealth,) *propugnacolo* and not fortezza (fortress,) *pomi luculliani* (Lucullian apples) and not ciliegie (cherries,) *pulchritudine* and not bellezza (beauty.) Is not *da vulnere oppressi* the classic "vulneribus oppressi," (oppressed with wounds,) and the "lasciati di costumi" "*laxati moribus*" (lax in morals?)

More than the word itself, which might be purely an exercise of pedantic affectation, the expressiveness of the phrase, of the period, of the whole thought, count in giving the humanistic value of this narrative.

To well understand the phraseology of Verrazzano, it is enough to imagine that it is Latin prose. Indeed it was thought that this letter was written in Latin or in Latin style. There is also a proof of this familiarity with the language of the higher culture in some Latin passages which escape from the writer: *Appel-*

lavimus Annunciatam a die adventus (we named it Annunciata from the day of arrival) explaining that the day of arrival gave the name to the land; in another place there is a little hill which *manet mari,* stands by the sea; he gives, in Latin style, the "tu" (thou) to the Sovereign: in the annotation,: "dal principato, il quale obtenesti in minor fortuna" (from the principality which thou attainedst in lesser fortune;) and again: "dal nome di tua sorella" (from the name of thy sister.)

This sailor who baptizes the beautiful land *Arcadia* and transforms his own name into a *Janus* which corresponds a little to Gianni and to Jean, as he would have been called in Florence and in France, but which has the aspect of Roman nobility,— this sailor, is he then a man of letters? Let us think of the times of his youth, between the great fruit of the work of Lorenzo the Magnificent and the marvellous renaissance of all the arts and all the sciences, and it will be found reasonable that Giovanni, born of a great and wealthy family, related to the principal men of the city, would share in that divine fire of classical culture which took possession of the Florentines of the fifteenth century; and when at the dawn of the sixteenth century, he shall undertake his voyages in the eastern and western Mediterranean, the education of his mind through the works of the masters who will adorn the platonic academy of the Orti Oricellari and through the work of the perpetuators of the great cosmographer Paolo Dal Pozzo Toscanelli, may be said to be ripe.

This character of the mind of Giovanni da Verrazzano escaped the notice of Desimoni and many others who copied him. It was not a luxury nor an affectation, as the Ligurian historian believed, this use of Latinisms scattered freely through the Letter, but a spontaneous expression of the mentality and the culture of the distinguished Florentine who fully understood the form and the spirit of classic Romanism.

Of the four most representative Italian explorers, Columbus is the mystic, Cabot the adventurer, Vespucci the business man,

Verrazzano the man of letters; and to each one of these is due the first discovery of each of the four powers which gave birth to the modern American States; the Spaniards to a Genoese Christopher Columbus, the Portuguese to a Florentine Amerigo Vespucci, the English to a Venetian Giovanni Caboto, the French also to a Florentine Giovanni da Verrazzano.

* * *

The printing of *R.* which here follows was done with the greatest care. Solely for the sake of clearness we have subdivided the account into various chapters so as to facilitate reference by the readers. It should be understood that the titles were placed for the same purpose.

We have subsequently interpolated among the chapters as near as possible to the same place as in the original the additions (aggiunte) which alone give the greatest importance to *R.* They are twenty-six, of different lengths and meanings, new anecdotes, new geographical details, determined localities with their names.

One anecdote has historical value for the study of precolumbian social and religious institutions of America and its age of stone. They were ashore, about twenty in number, along the coast of Arcadia (in Maryland or Delaware). A native arrived who, having overcome fear and being reassured, advanced holding forth a burning stick as if to offer fire. It was a salutation of friendship.

Those peoples, as Verrazzano had well observed, were Nomads, whether for the hunt or whether, after having destroyed the woody growths which surrounded them through the need of new firewood, they were led elsewhere. So much so that when the first white colonists arrived, some natives supposed that these pale men had consumed all the wood in their own country and had come to their lands solely to procure more. The need of fire then creates the singular greeting recorded by Verrazzano and the presentation of fire among those natives is equivalent to the offering of bread and salt, of wine, etc., to the guest, in use even to-day among the various European peoples.

New geographical details are: the supposed isthmus with which we will occupy ourselves hereafter, and the supposed view of the sea of Asia; then two charming capes, one called "Lanzone" the other "Bonivetto," that is Admiral Bonivet, killed in the battle of Pavia; a cape at the mouth of Porto Refugio called "Giovio;" Cape Cod, called Promontory "Pallavicino" and its shoals called "Sirti d'Armellini."

We said that we would shortly treat separately of the reasons which led Verrazzano to see an isthmus in the midst of the Atlantic coast of North America. At all events we will note that the *climax,* the battlehorse of Murphy and of the Murphyites, was the affirmation that the account of Verrazzano was invented upon the basis of the mappamondo described by Diego Ribero, cartographer of Charles V. It has already been said that this document, kept secret for a long time, could not have been known either by Florentines or by others. But the *R.* codex furnishes the triumphant argument. In it Verrazzano described the isthmus, and there is not a trace of the isthmus in the map of Ribero.

Is it possible that with the guide of that map, the inventor of a trick would wish to fall into an error? Happy error, indeed, was that of Verrazzano, since it gives the irrefutable proof, if indeed there were any need, that neither the Verrazzano of 1524 nor the friends who supervised him could have been the plagiarists of Ribero and his secret map of 1529.

The choice of the names for the localities is the last care to which an explorer attends. When the latter is a stranger, like Verrazzano in France, the work demands even greater thought and greater consideration of the strangers in order not to hurt their susceptibilities and in order to flatter in equal measure their self-esteem. Therefore, the finding of precious but fateful designations is another datum for the period of the codex. In the first days Verrazzano makes only one concession to his native city with "Annunciata," in memory of the Florentine new year which has on the other hand universal value as a religious name; and

nearly all the other places he dedicates to men and things of France. Later on the love of home will take the lead.

Names in greater number we find in the maps whose derivation from Verrazzano cannot be placed in doubt. Evidently he amplified and worked over their topographic nomenclature. Such revision came after the report of 1524 and before 1527, the date of the map of the Genoese cartographer Visconte Maggiolo; and neither was this work final because two years later the chart of Gerolamo da Verrazzano brought forth other modifications. In these, nevertheless, we must make allowance for the caprice of the cartographers who sometimes suppress names, and other times introduce them according to their fancy without noting the incorrect interpretation. Thus, while in the map of Maggiolo and in the map of Gerolamo we do not find the *Arcadia* fixed by Giovanni, this reappears in the later French maps of the sixteenth century together with *Angoulesme, Port Refuge,*[15] etc. Even the island *Luisa* is maintained, but on account of transcription after transcription, error after error, becomes island *Brisa.*

In the two maps nearest to Verrazzano,— that of the Genoese and that of his brother,— we meet names dear to the Florentines. Each most pleasing place of the distant lands awakens in the heart of the captain of Francis I the remembrance and the longing for the beloved fatherland. He desires that on the unknown coasts of the New World the fame of the beauty and nobility of his land shall resound, but human vicissitudes dispose otherwise. Neither to Italians nor to Frenchmen will come the glory of directing there the work of colonization which Verrazzano had already foreseen.[16]

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[15] So also it should be noted that while we find *El Paradiso, Porto reale* and *Flora* in Maggiolo and in French charts quite late, these names are not recorded either by Giovanni or by Gerolamo.

[16] Ramusio narrates in "Discorso sopra la Nuova Francia" (*navigationi,* III., page 417): "Many who know him (Verrazzano) and spoke to him have told me that he declared having the intention of aiming to persuade the most Christian King to send to those parts a good number of people to dwell in certain parts of the said coasts which are of temperate atmosphere and of very fertile lands with most beautiful rivers and ports capacious enough for any fleet." And he also wanted to teach agriculture to the natives, "introducing the animals of our Europe in those most spacious lands."

Other names will have good fame which will not be recorded either in Italy or in France, and those placed by the Florentine navigator after three and a half centuries of oblivion will return to light through old yellow documents as a simple historical curiosity: nevertheless they now have the power to arouse his negligent fellow-countrymen because in them they see the proofs of the devout passion which held him bound to the fatherland.

* * *

The *R.* codex then establishes what is the origin of many names which figure in the ancient cartography of North America. That they were, equally with the presumed isthmus, attributable to Verrazzano was inferred especially after the examination of the map of Gerolamo, but we did not have the final proof. This latter is given by the Cèllere codex as appears from the comparison between the names of *R.*, those of the Maggiolo chart preserved in the Ambrosiana of Milan and those of the chart of Gerolamo preserved at the Propaganda Fide.

Codex R. (Cellere) (1524)	Visconte Maggiolo (1527)	Gerol. da Verrazzano (1529)
FRANCESCA, *"all the land found"*	FRANCESCA	VERRAZANA, or *Nova Gallia*, or *Jucatanet*
Selva di Lauri, *land* (March 7)	G. della Foresta	.....
Campo di Cedri, *land*	.....	.....
Annunciata, *land*, (March 25)	La Nunciata	La Nuntiata
Verazanio, *isthmus*	*There is the isthmus, but anonymous,*	*There is the isthmus, but anonymous,*
Arcadia, *land*	.....	.....
Costa di Lorenna, *land*	Costa de Lauorena	.....
Lanzone, *promontory,*	.....	.....
Bonivetto, *promontory*	.....	Bonivetto
San Polo, *mountain*	S. Poll	.....

Vandoma, *river*	. . . . .	Vendomo
Angoleme, *land*	Anguilema	Angolemme
S. Margarita, *bay*	G. S. Margarita	. . . . .
Aloysia, *island*	Luisa	Luisa
Refugio, *port*, (Apr. 22–May 6)	Refugio	G. del Refugio
La Petra Viva, *island*	. . . . .	. . . . .
Jovium, *promontory*	Jovium promontorium	Jovium promontorium
Armellini, *shoals*	Armelines Siltes	Armelline Sirtes
Pallavisino, *promontory*	. . . . .	. . . . .
Le Tre Figlie di Navarra, *islands*	Le figole de Navarrin, (for *Navarria*)	Le figle di Navarra
Terra di mala gente	Terra de multa gente ..	Terra ond' è mala gente
Terra dei Bretoni	C. de' Bertoni	C. de' Brettoni

The order of the localities is geographical from South to North, as given by Verrazzano.

The agreements are nevertheless not always perfect. The names agree, but not the places. For example, the Terra dell' Annunciata indicated in its place in the Maggiolo near the present isthmus, as Verrazzano had said, is repeated twice in Gerolamo and always much farther north. The Cape Bonivet is also repeated twice in Gerolamo, once to the south of Angoulême (New York), and the other time farther north than Cape Cod; and there are also two rivers Vendomo (Hudson), one before the island Luisa and the other more to the north of Cape Cod; and thus we read twice Palavisina, L'Imprunetа, Sanseverino, Lungavilla, Capo d'Olimpo, La Victoria, Monte Morella and one Cape M. Morello, and three times Sant' Anna. These repetitions, as we will demonstrate in the next article, are errors, and are due more probably to a maladroit arrangement which Gerolamo made of a chart prepared and perhaps not completed by Giovanni before his last expedition from which he was never

to return. Through these inexactitudes the chart of the *junior* Verrazzano remains less in correspondence with the indications of *R.* than with the Maggiolo chart.

Cape Jovio in the Maggiolo chart is placed "a destra della bocca del porto" del Refugio, (at the right of the mouth of the port of Refugio,) as Verrazzano says. Instead, in Gerolamo Verrazzano there is a Capo del Refugio and then near Cape Cod a *Jovim promontorium,* while the Cape Pallavicino, which in the letter is identified with Cape Cod, is found near Refugio, that is, more southward.

The origin of various of these names is indicated in the same letter. The reason for *Petra viva* remains obscure. "Per la natura del sasso" (on account of the nature of the stone) says Verrazzano, and thus far is clear; but that which follows does not explain itself: "e per la famiglia di una gentildonna" (and on account of the family of a gentlewoman). Does it treat of a gentlewoman who stands in Verrazzano's heart and of a family whose name is derived from "pietra?" At Florence there was a family Petrei; but the gentlewoman, was she Italian or French?

Thus it does not appear who may be the Armellini from whom the shoals of Cape Cod are named. It does not seem that he meant to indicate the well-known weasel;* therefore he must have meant some personage. Since the history of France does not suggest to me any name, I thought of an Armellini of Italy famous in these days. This man was the Cardinal of Perugia, Francesco Armellino, the most subtle and resourceful tax-gatherer, as Domenico Gnoli called him, who ever lived. Having become Chamberlain with the election of Pope Clement VII Medici (November 18, 1523.) he had the office of the treasury of the Church; and to make money, which he loved much, and to fill up the papal coffer, remaining empty after the prodigal

* Note by translator: Armellino in Italian means ermine, the well-known species of the weasel family.— E. H. H.

Leo X, he studied the most unusual expedients. In his way he was a man of grim humor. The Venetian ambassador Marco Foscari, in an account, records that he caused a tax to be placed on thrushes, from which he received 2500 ducats a year. The satire of the time represents him to us desperate because of not finding the way to make flies pay rent and ants a tax on their burdens. He was so hated, even by his colleagues, that in Consistory the Cardinal Pompeo Colonna proposed to skin him alive and to send his skin around the State of the Church charging a quattrino to whomsoever wished to see it, so that so much money would be obtained by it as to enrich the pontifical treasury.[17]

The bankers, excepting the Strozzi and the Chigi, beloved of the Pope, must have been the object of special attention from the iniquitous usurer. We can imagine the affection which the Rucellai and the Verrazzano bore him, they who were so little in the graces of the Medici in general and of Clement in particular. In Giovanni's dedicating to him the barren shoals of Cape Cod — the worst place about which he speaks in his navigation — the two families must have had a jolly revenge on the odious treasurer, and at Rome they must have laughed much at the new hit on the treasurer who was ever a butt for jests,— who soon after that really was stranded: On one of the first days of the sack of Rome (1527) he died of a broken heart at Castle Sant' Angelo as soon as it was announced to him that the soldiers of Bourbon had stolen all his property.

As we said, the names of Verrazzano which follow were extensive, giving large field to the Normans and to the French, recording Dieppe and Honfleur, Normanville, the Duke di Longueville, Saint-Germain, the Duke d'Orleans, etc.; and commemorating for the Tuscans and for the Italians: Livorno, L'Impruneta, Monte Morello, Careggi, l'Orto dei Rucelai, San Gallo, Vallombrosa, etc., and the two Italian military generals in the army of

[17] Cfr. Domenico Orano, *Il Sacco di Roma*, 1901, pages 31 and 217.

King Francis, Gian Lodovico Pallavicino, Marquis of the Corte Maggiore, and Galeazzo Sanseverino, great Equerry of the kingdom, both fallen in the war of 1525.

I note meanwhile, as a matter of curiosity, that Desimoni believed that the name of Santa Margarita was chosen to commemorate a place of delights for the King; instead, it is an homage to the tenth Muse, the fourth Grace, the sister of King Francis.[18] Verrazzano says that she vanquishes the other matrons of modesty and genius. Referring to the perfect princess, comparable to Isabella Gonzaga and to the most illustrious women of the Italian Renaissance, the compliment was not courtly. From this same catalogue is definitely established the name of Figlie di Navarra by the islands which some people wanted called "figlie di Navarro," the celebrated Captain.

And another observation: Murphy wished to have it that the name *Francesca* was invented by Jacques Cartier after his voyages (1534–1544) in Canada. Instead, the *Francesca* of Münster (1540), the *Terra Franciscana* of Alfonse (1545), and the expression "*viages de France*" of Agnese (1536) do nothing else but repeat the designation given for the first time by the Florentine navigator. Those who instead write the name *Verrazzana* like the globe of Euphrosinus Ulpius (1542) follow Gerolamo, who, after the death of his brother which happened in 1528, through fraternal devotion substituted for the name of the King that of the Discoverer.

* * *

In the second half of the nineteenth century, the studies of Verrazzano, which had their first impulse in 1841 through the worthy and studious American Greene, were disturbed by a kind of cyclone which, arisen on the coasts discovered by the Florentine

[18] This baptism, S. Margarita, of the bay of New York, was the first one but not the only one in those years. After Verrazzano the Spaniard Stefano Gomez, the second white man who penetrated that historic bay, gave it the name of Bay of San Antonio. Hudson and the Hollanders, eighty years later, will give other names, this time outside of the list of saints.

navigator, struck the peaceful dominions of historical science and geography of Europe. The cyclone was, as every one knows, the book of Murphy, which, after a first attack by Buckingham Smith in 1864, thought to deprive Verrazzano not only of glory but also honor. The fortuitous coincidence of two events found in the Spanish historian Herrara and the arbitrary equivalence of two names sufficed for the criticism of Murphy to demolish the fame of Verrazzano, the "valorous gentleman" as Ramusio, who had direct testimony on the life and works of the Florentine, characterized him.

Herrera tells of a G. da Verrazzano, *corsario francese* (French corsair,) who had made an expedition, and then spoke of a Florino, *pirate francese* (French pirate) who was hanged by the Spaniards. *Post hoc,* . . . . therefore the hanged man is Verrazzano and Florino means Florentine. *His fretus,* with these fine foundations, Murphy wanted to prove that our explorer could not have been in America while he was depredating the ships near the coasts of Spain.

The storm having subsided, other documents and other arguments, through the labors of Harrisse, Da Costa, Desimoni, and Hugues, came to light. But the confusion had been so great that not even the great *Raccolta Colombiana* resented it. It is true, the reality of the voyage is admitted in it, but the identity of the Florentine captain Giovanni da Verrazzano with the Gascon pirate, Jean Florin de la Rochelle, is accepted; so much so that the same worthy Berchet, and the same Hugues, who had a notable part in that great publication, did not notice that they themselves had published two decisive documents. Paolo Giovio's passage relative to Verrazzano in the biography of Fernando Cortes and the annotations of the Legation of Navagero inserted in part III, volume II, admitted no doubts. And yet the error that *Florin* was equivalent to *Florentine* had fixed itself so firmly in the minds of our critics that it needed a picture of those times of the undertakings of the pirate, resulting from the case of the

depredations discussed before the mixed Franco-Portuguese tribunal, to demonstrate clearly that they were two different persons who had nothing in common. The splendid publication of Peragallo with the Portuguese documents buried for all time the fable of Verrazzano, pirate and hanged man, and took away one of the principal arguments for denying the truth of the "voyage of France."

The other doubts were derived from errors contained in the Letter to Francis I. Even in this, Verrazzano was unfortunate; his scientific fame was founded on one document too careless and awkward, and on another too presumptuous and unfaithful.

Between the two excesses, the new text which we here publish, in giving the authentic form, re-establishes the equilibrium, and shows who Verrazzano really was as a discoverer of new lands and as a writer. This was the final vindication for which he had a right to wait. It coincides — fortunate coincidence — with the raising of a statue to the Navigator in Battery Park, (New York,) where the manly and severe figure overlooks the great and populous harbor which he first entered and of which his account marks the first page of its prodigious history.

* * *

The italics in the text according to the Roman codex (R.) indicate the words which were not found in the Florentine codex (F.)

The numbered notes are the additions in handwriting differing from that of the amanuensis, probably autographs of Verrazzano.*

The variations at the foot of the pages are of the Florentine codex (F.) the fragment of the Academy of Cimento (C.), and of Ramusio (Rm.) If they contain additions to the R. text, they are in italics.

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* Note by translator: As stated in my Prefatory Note, I have indicated these additions by the twenty-six letters of our alphabet instead of by the twenty-six numbers (1 to 26) which the author used.— E. H. H.

The nautical measurement used by Verrazzano is the league = 4 Roman miles or 5924 meters, that is 75 miles to the degree.

Since the astronomical observations of Verrazzano show, as in fact was common at that time, mistakes of one or two degrees, we give the real positions of the places recorded in the letter:

Carthagina, 36° 51′ north latitude (and not 34°;) Damascus, 33° 30′ N. (and not 34°;) Rome 41° 53′ N. (and not 41⅔°, supposing that the indication of 40° in R. may be an oversight;) Norway (Cape North) 71°; Good Hope (Capo Agulhas) 34° 40′ S. The longitude used is that of the Fortunate Islands (the Canaries.)

The quotation from the Evangelist cited at the end of the letter is from St. Paul to the Romans, X, 18: "In omnem terram exivit sonus eorum et in fines orbis terrae verba eorum," (their sound went out into all the earth and their words into the ends of the world.) For the understanding of the rest, besides the general observations in the introduction on the humanistic character of the document, it is necessary to keep in mind the almost constant elisions of "che" (that) relative pronoun and conjunction, elisions common in many writers of the sixteenth century (cfr. Cellini.) We add the significance of the less common words:

abligo, Span-Port. *abrigo,* shelter,
albitrio, *arbitrium,* estimate of the sailing,
altitudine, height of the pole, or, otherwise, latitude.
bruna, dark cloud, darkness,
curioso, full of care, solicitous,
descorso, sailing of the ship
disposto, well proportioned,
edificio, ship
flemito, *fremitus,* crying out
fantasie, trifles, curiosities,
lineare, to examine from head to foot,
lustrare, to sail along, to coast,
naveleri, navalieri, naval experts,
rigare, to navigate along a coast in a straight line,
surgere, to cast anchor,
tormenta, French *tourmente,* tempest.
tenitorio, holder, bottom where the anchor takes hold.
tornare, French *tourner,* to turn,
versura, turn, turning.

[dal Ramusio]

Terra d'Angoulême e Porto del Refugio nelle carte francesi.

THE HISTORY OF THE DAUPHINE AND ITS VOYAGE.

To King Francis I of France.

After the tempest suffered in the northern parts, Most Serene King, I have not written to Your Majesty that which was experienced by the four ships[19] which thou hadst sent by the Ocean to discover new lands, thinking that thou hadst been certified of everything — how we were compelled by the impetuous force of the winds to return to Brittany with only the distressed Normanda and Dauphine; where having made repairs, Your Majesty will have learned the voyage we made with them, armed for war, along the coasts of Spain;[20] later, the new disposition with the Dauphine alone[21] to continue the first navigation;[22] having returned from which, I will tell Your Majesty what we have found.

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[19] The *R.* document uses the word "navi" for ships; the *F.* document uses "legni," meaning the same thing. In the following footnotes which refer to similar variations, which have no special significance, which cannot readily be expressed in English, or which (as is sometimes the case) make nonsense, I have referred the reader to the Italian text following.— TRANSLATOR.

[20] *Rm.* we took our course along the coasts of Spain: *which Your Majesty will have learned by the profit which we made thereby.*

[21] *Rm.* Later, with the Dauphine alone, the discovery of new countries was considered in order not to leave incomplete the navigation already commenced.

[22] See Italian text.

From Madeira to the New World. Tempest in the Ocean.

From the deserted rock near to the Island of Madeira of the Most Serene King of Portugal (*a*) with the said Dauphine, on the XVII of the month of January past, with fifty men, furnished with victuals, arms and other instruments of war and naval munitions for eight months, we departed, sailing westward by an east-south-east wind blowing with sweet and gentle lenity.[23] In XXV days we sailed eight hundred leagues. The XXIIII day of February[24] (*b*) we suffered a tempest as severe as ever a man who has navigated suffered: From which, with the divine aid and the goodness of the ship, adapted by its glorious name and fortunate destiny[25] to support the violent waves of the sea, we were delivered.[26] We pursued our navigation continuously toward the west, holding somewhat to the north. In XXV more days we sailed more than 400 leagues where there appeared to us a new land never before seen by anyone, ancient or modern.

(*a*) *commencing* 1524. [The same hand had written 1523, then changed the 3 to 4.]
(*b*) *perhaps* 16 *hours*.

The Land First Seen in 34° N. Latitude.

At first it appeared rather low; having approached to within a quarter of a league, we perceived it, by the great fires built on the shore of the sea, to be inhabited. We saw that it ran toward the south; following it, to find[27] some port where we could[28] anchor *with the ship* and investigate its nature, in the space of fifty leagues we did not find a port or any place where it was possible to stay with the ship. And having seen that it trended continually to the south, (*c*) we decided to turn about to coast it toward the north, where we found the same place.[29] We anchored by the

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23 *F.* lightness.
24 *Rm.* on the 20 February.
25 *F.* goodness and praise of the glorious name and fortunate achievement. *Rm.* goodness of the ship together with the good fortune of its name.
26 *Rm.* And the sea subsiding, with prosperous wind.
27 *Rm.* searching them to discover.
28 *F.* near port.
29 *Rm.* where we found ourselves in the same difficulty.

coast, sending the small boat to land. We had seen many people who came to the shore of the sea and seeing us approach fled, sometimes halting, turning back, looking with great admiration. Reassuring them by various signs, some of them approached, showing great delight at seeing us, marvelling at our clothes, figures and whiteness,[30] making to us various signs where we could land more conveniently with the small boat, offering to us of their foods.

(c) *in order not to meet with the Spaniards.*

THE FIRST LANDING AND THE FIRST INDIGINES.

We were on land, and that which we were able to learn of their life and customs I will tell Your Majesty briefly:

They go nude of everything except that at the private parts they wear some skins of little animals like martens, a girdle of *fine* grass woven with various tails of other animals which hang around the body as far as the knees; the rest nude; the head likewise. Some wear certain garlands[31] of feathers of birds. They are of dark color not much unlike[32] the Ethiopians, and hair black and thick, and not very long, which they tie together back on the head in the shape of a little tail. As for the symmetry of the man,[33] they are well proportioned, of medium stature, and rather exceed us. In the breast they are broad, their arms well built, the legs and other parts of the body well put together. There is nothing else, except that they incline somewhat to broadness in the face; but not all, for in more we saw the face clear-cut. The eyes black and large, the glance intent *and quick*. They are not of much strength, in craftiness acute, agile and the greatest runners. From what we were able to learn by experience, they resemble in the last two respects the Orientals, and mostly those of the farthest Sinarian regions.[34] We were not able to learn with particularity

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[30] See Italian text.
[31] *F.* similar garlands.
[32] *Rm.* they are of berretta color and not much different from the Saracens. [See translator's note on page 164 preceding.]
[33] *F.* likeness of the man.
[34] *Rm.* regions of China.

of the life and customs of these people because of the shortness of the stay we made on land, on account there being *few people and the ship anchored in the high sea.*[35]

"Forest of Laurels" and "Field of Cedars."

We found on the shore, not far from these, other people whose lives we think are similar. *I will tell Your Majesty about it, describing at present the site and nature of said land.* The *maritime* shore is all covered with fine sand XV feet high, extending in the form of little hills about fifty paces wide.[36] After going ahead,[37] some rivers and arms of the sea were found which enter through some mouths, coursing[38] the shore on both sides as it follows its winding.[39] Near by appears the spacious land, so high that it exceeds the sandy shore, with *many* beautiful fields and plains,[40] full of the largest forests, some thin and some dense, clothed with as many colors[41] of trees, with as much beauty and delectable appearance as it would be possible to express. And do not believe, *Your Majesty,* that these are like the Hyrcanian Forest or the wild solitudes of Scythia[42] and northern countries, full of rugged trees,[43] but adorned *and clothed* with palms, laurels, cypresses,[44] and other varieties of trees unknown in our Europe (*d*); which, for a long distance, exhale the sweetest odors; (*e*) *the property* of which we were not able to learn, for the cause above narrated, not that it was difficult for us to travel through the forests,[45] *because their density is not so great but that* they are *entirely* penetrable. We think that partaking of the Orient on account of the surroundings, they are not without some medical

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35 See Italian text.
36 *Rm.* rising about 15 feet, extending in the form of broad little hills.
37 *Rm.* After having navigated.
38 *Rm.* washing the shore.
39 *F.* its shore. *Rm.* its turning.
40 *F.* provinces.
41 *F.* of various colors. *Rm.* various sorts of trees.
42 *Rm.* solitudes of Tartary.
43 *F.* full of vines and trees. *Rm.* wild trees.
44 *Rm.* tall cypresses ("*tall*" was also found in *R.* but was cancelled).
45 *F.* through the forest.

property or aromatic liquor. And other riches: gold,[46] to which land of such a color has every tendency. It is abundant of many animals, stags, deer, hares; likewise of lakes and pools of living water, with various numbers of birds, adapted and convenient for every delectable pleasure of the hunt.[47]

> *(d) We baptized this land "Forest of Laurels" and a little farther down on account of the beautiful cedars it was given the name "Field of Cedars."*
>
> *(e) We smelled the odor a hundred leagues, and farther when they burned the cedars and the winds blew from the land.*

SALUBRITY AND MILDNESS OF THE CLIMATE.

This land stands in 34 degrees. (*f*) The air salubrious, pure and moderate of heat and cold; in those regions gentle winds blow, and those which prevail most continuously are west-north-west and west[48] in summer time, *at the beginning* of which we were; (*g*) the sky *clear and* serene with infrequent rains, and if sometimes with the south winds the air gathers in clouds or darkness,[49] in an instant, not lasting, it is dispelled, again becoming pure and clear; the sea tranquil and not boisterous, the waves of which are placid. And although the shore always tends to lowness, and is barren of ports, it is not therefore troublesome for sailors,[50] being entirely clean and without any rocks; deep, so that within four or five paces from land are found, exclusive of flood or ebb, XX feet of water, increasing in a uniform proportion to the deep[51] of the sea; with such good holding-ground[52] that any ship whatsoever afflicted by the tempest can never perish in those parts unless it breaks its rope.[53] And this we have proved by experience; because many

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46 *F.* gold and other.
47 *Rm.* pleasure of the chase.
48 See Italian text.
49 See Italian text.
50 *Rm.* tiresome for sailors.
51 See Italian text.
52 *F.* territory. *Rm.* anchorage.
53 *Rm.* cable.

times in the beginning of March when the force of the winds usually prevails in all countries, being anchored in the high sea, oppressed by storms, we found the anchor broken before it dragged on the bottom or made any movement.

(*f*) *like Carthage and Damascus.*
(*g*) *in those regions.*

A Sailor Among the Indigines—The Land of "Annunciata" and the "Isthmus Verrazzanio."

We left this place continually skirting the coast, which we found turned to the east. Seeing everywhere great fires on account of the multitude of the inhabitants, anchoring there off the shore[54] because it did not contain any port, on account of the need of water we sent the little boat to land with XXV men. Because of the very large waves which the sea cast up on the shore on account of the strand being open, it was not possible without danger of losing the boat for any one to land. We saw many people on shore making us various signs of friendship, motioning us ashore; among whom I saw a magnificent deed, as Your Majesty will hear.

Sending ashore by swimming one of our young sailors carrying to them some trinkets, such as little bells,[55] mirrors, and other favors, and being approached within 4 fathoms of them, throwing the goods to them and wishing to turn back he was so tossed by the waves that almost *half dead* he was carried to the edge of the shore. Which having been seen, the people of the land ran immediately to him; taking him by the head, legs and arms, they carried him some distance away. Where, the youth, seeing himself carried in such way,[56] stricken with terror, uttered very loud cries, which they did similarly in their language, showing him that he should not fear. After that, having placed him on the ground *in the sun* at the foot of a little hill, they performed great acts of ad-

[54] *F.* anchoring off that shore.
[55] *Rm.* in order to send them some of our things, by the Indians commonly much desired and valued, as are sheets of paper, little bells.
[56] *F.* in such shape.

miration, regarding the whiteness of his flesh, examining him from head to foot.[57] Taking off his shirt and hose, leaving him nude, they made a very large fire near him, placing him near the heat. Which having been seen, the sailors who had remained in the small boat, full of fear, as is their custom in every new case, thought that they wanted to roast him for food. His strength recovered, having remained with them awhile, he showed by signs that he desired to return to the ship; who, with the greatest kindness, holding him always close with various embraces, accompanied him as far as the sea, and in order to assure him more, extending themselves on a high hill, stood to watch him until he was in the boat. Which young man learned of this people that they are thus: of dark color like the others, the flesh more lustrous, of medium stature, the face more clear-cut, much more delicate of body and other members, of much less strength and even of intelligence. He saw nothing else[58](*h*).

(*h*) *We called it Annunciata from the day of arrival, where was found an isthmus a mile in width and about* 200 *long, in which, from the ship, was seen the oriental sea between the west* [before had been written "the *east*" *and north. Which is the one, without doubt, which goes about the extremity of India, China and Cathay. We navigated along the said isthmus with the continual hope of finding some strait* [after this word was written "to the end of," but was cancelled] *or true promontory at which the land would end toward the north in order to be able to penetrate to those blessed shores of Cathay. To which isthmus was given by the discoverer* [*the name Isthmus*] *Verrazanio: as all the land found was named Francesco for our Francis.*

[57] *Rm.* omits "examining him from head to foot."
[58] *Rm.* I saw nothing else.

Three Days in "Arcadia." A Boy Stolen.

Having departed thence, following always the shore which turned somewhat toward the north, we came in the space of fifty leagues to another land which appeared much *more* beautiful and full of the largest forests. Anchoring at which, XX men going about two leagues inland, we found the people through fear had fled to the woods. Seeking everywhere, we met *with* a very old woman and a damsel of from XVIII to XX years, who through fear had hidden themselves in the grass. The old one had two little girls whom she carried on the shoulders, and back on the neck a boy, all of eight years of age.[59] *The young woman had as many of the same, but all girls.* Having approached toward whom, they began to cry out, [and] *the old* woman to make signs to us that the men had fled to the woods. We gave them to eat of our viands, which she accepted[60] with great gusto; the young woman refused everything and with anger threw it to the ground. We took the boy from the old woman to carry to France, and wishing to take the young woman, who was of much beauty and of tall stature, it was not however possible, on account of the very great cries which she uttered, for us to conduct her to the sea. And having to pass through some woods, being far from the ship, we decided to release her, carrying only the boy.

The Textile Plants and the Grape—The Offering of Fire.

These we found lighter colored than those past, dressed in certain grasses which grow, pendent from the branches of the trees, which they weave with various ends of wild hemp.[61] The head bare. in the same form as the others. Their food in general is of pulse with which they abound, differing in color and size from ours, of excellent and delectable flavor; also, from hunting, fishes and birds, which they take with bows and with snares. They make [the bows] of tough wood, the arrows of reeds, placing at the extremi-

59 *F* of *about* eight years. *Rm.* a little boy of about eight years.
60 *F* they accepted.
61 *Rm.* cords of wild hemp.

ties bones of fishes and of other animals. The beasts in this part are much wilder than in our Europe because they are continually molested by the hunters. We saw many of their barges constructed from a single tree twenty feet long, four wide, *which* are not fabricated with stones, iron or other kind of metals, because *in* all this land, in the space of two hundred leagues which we traveled, only one stone of any species was seen by us. They aid themselves with the fourth element,[62] burning such part of the wood as suffices for the hollow of the barge, also of the stern and prow, so that, navigating, it is possible to plough the waves[63] of the sea.

The land in situation, goodness and beauty, is like the other; the forests open; full of various kinds of trees, but not of such fragrance, on account of being more north and cold. We saw in that [land] many vines of natural growth which, rising, entwine themselves around the trees, as they are accustomed in Cisalpine Gaul;[64] which, if they had the perfect system of culture by the agriculturists, without doubt would produce excellent wines, because [of] finding many times the *dry* fruit of those [vines][65] sweet and agreeable, not different from ours. They are held in esteem by them, because wherever they [the vines] grow, they lift up the surrounding bushes[66] in order that the fruit may be able to mature. We found wild roses, violets and lilies, and many sorts of herbs, and fragrant flowers different from ours. We did not learn about their habitations on account of their being within, inland. We think, on account of many signs we saw, they are composed of wood and grass, believing also from various conjectures and signs, that many of them, sleeping on the ground, have nothing for cover except the sky. We did not learn else of them. We think all the others of the land passed live in the same manner.

Having remained in this place three days, anchored off the coast, we decided on account of the scarcity of ports to depart,

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62 *Rm.* they help themselves with fire.
63 *Rm.* to endure the waves.
64 *Rm.* as they are accustomed in Lombardy.
65 *F.* drinking the product of those. *Rm.* having many times seen the dry fruit of those.
66 See Italian text.

always skirting the shore(*i*) toward the north and east, navigating by daylight and casting anchor at night.(*j*)

> (*i*) *which we baptized Arcadia on account of the beauty of the trees.*
>
> *In Arcadia we found a man who came to the shore to see what people we were: who stood hesitating and ready for flight. Watching us, he did not permit himself to be approached. He was handsome, nude, with hair fastened back in a knot, of olive color.*
>
> *We were, about XX* [in number,] *ashore and coaxing him he approached to within about two fathoms, showing a burning stick as if to offer us fire. And we made fire with powder and flint-and-steel and he trembled all over with terror and we fired a shot. He stopped as if astonished and prayed, worshipping like a monk, lifting his finger toward the sky, and pointing to the ship and the sea he appeared to bless us.*
>
> (*j*) *we followed a coast very green with forests but without ports, and with some charming promontories and small rivers. We baptized the coast "di Loremna" on account of the Cardinal; the first promontory "Lanzone," the second "Bonivetto," the largest river "Vandoma" and a small mountain which stands by the sea "di S. Polo" on account of the Count.*

Land of Angouleme, Bay Saint Margherita (New York,) River Vendome (Hudson,) Island of Queen Luisa (Block Island?)

At the end of a hundred leagues we found a very agreeable situation located within two small prominent hills,[67] in the midst of which flowed to the sea a very great river,[68] which was deep within the mouth; and from the sea to the hills of that [place] with

[67] *Rm.* among little hills.
[68] *Rm.* very great torrent.

the rising of the tides, which we found eight feet, any laden ship[69] might have passed. On account of being anchored off the coast in good shelter,[70] we did not wish to adventure in without knowledge of the entrances. We were with the small boat, entering the said river to the land, which we found much populated. The people, almost like the others, clothed with the feathers of birds of various colors, came toward us joyfully, uttering very great exclamations of admiration, showing us where we could land with the boat more safely. We entered said river, within the land, about half a league, where we saw it made a very beautiful lake with a circuit of about three leagues; Through which they [the Indians] went, going from one and another part to the number of XXX of their little barges, with innumerable people, who passed from one shore and the other in order to see us. In an instant, as is wont to happen in navigation, *a* gale *of* unfavorable wind blowing in from the sea, we were forced to return to the ship, leaving the said land with much regret because of its commodiousness and beauty, thinking it was not without some properties of value, all of its hills showing[71] indications of minerals.(*k*)

The anchor raised, sailing toward the east, as thus the land turned, having traveled LXXX[72] leagues always in sight of it, we discovered an island triangular in form, distant ten leagues from the continent, in size like the island of Rhodes, full of hills, covered with trees, much populated [judging] by the continuous fires along all the surrounding shore which we saw they made. We baptized it in the name of your most illustrious mother;(*l*) not anchoring there on account of the unfavorableness of the weather.[73]

(*k*) *Called Angôleme from the principality which thou attainedst in lesser fortune, and the bay which that land makes Santa Margarita from the name of thy sister who vainquishes the other matrons of modesty and art.*

(*l*) *Aloysia.*

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[69] *Rm.* any great loaded ship.
[70] *F.* restraint. *Rm.* in a place well protected from winds.
[71] *Rm.* some wealth showing.
[72] *Rm.* and so 50 leagues.
[73] *Rm.* on account of the contrariness of the weather.

"Refugio," the Very Beautiful Port (Newport,) and Its Two Kings.

We came to another land, distant from the island XV leagues, where we found a very beautiful port, and before we entered it, we saw about XX barges of the people who came with various cries of wonder round about the ship. Not approaching nearer than fifty paces, they halted, looking at the edifice [i. e. the ship],[74] our figures and clothes; then all together they uttered a loud shout, signifying that they were glad. Having reassured them somewhat, imitating their gestures, they came so near that we threw them some little bells and mirrors and many trinkets, having taken which, regarding them with laughter, they entered the ship confidently. There were among them two Kings, of as good stature and form as it would be possible to tell; the first of about XXXX[75] years, the other a *young man* of XXIIII years, the clothing of whom was thus: the older had on his nude body a skin of a stag, artificially adorned like a damask with various embroideries; the head bare, the hair turned back with various bands, at the neck a broad chain ornamented with many stones of diverse colors. The young man was almost in the same style. This is the most beautiful people and the most civilized in customs that we have found in this navigation. They excel us in size; they are of bronze color,[76] some inclining more to whiteness, others to tawny color; the face sharply cut, the hair long and black, upon which they bestow the greatest study in adorning it; the eyes black and alert, the bearing kind and gentle, imitating much the ancient [manner]. Of the other parts of the body I will not speak[77] to Your Majesty, having all the proportions which belong to every well built man.[78] Their women are of the same beauty and charm;[79] very graceful; of comely mien and agreeable aspect; *of habits and behavior as much according to womanly custom as pertains to human nature; they go* nude with

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[74] *Rm.* the workmanship.
[75] *Rm.* of 20 years.
[76] *F.* of very white color.
[77] *F.* I do not speak.
[78] *F.* to one well built.
[79] *F.* form and beauty. *Rm.* conformation and beauty.

only one skin of the stag embroidered like the men,[80] and some wear on the arms very rich skins of the lynx; the head *bare*, with various arrangements of braids, composed of their own hair, which hang on one side and the other of the breast. Some use other hair-arrangements like the women of Egypt and of Syria[81] use, and these are they who are advanced in age and are joined in wedlock. They have in the ears various pendent trinkets as the orientals are accustomed to have, the men like the women, among which we saw many plates wrought from copper, by whom it is prized more than gold; which, on account of its color, they do not esteem; wherefore among all it is held by them more worthless;[82] on the other hand rating blue and red above any other. That which they were given by us which they most valued were little bells, blue crystals and other trinkets to place in the ears and on the neck. They did not prize cloth of silk and of gold nor *even* of other kind,[83] nor did they care to have them; likewise with metals like steel and iron: for many times showing them our arms they did not conceive admiration for them nor ask for them, only examining the workmanship. They did the same with the mirrors; suddenly looking at them, they refused them laughing. They are very liberal, so much so that all which they have they give away. We formed a great friendship with them, and one day, before we had entered with the ship in the port, remaining on account of the unfavorable weather conditions anchored a league at sea, they came in *great* numbers in their little barges to the ship, having painted and decked[84] the face with various colors, showing to us *it was* evidence of good feeling, bringing to us of their food, signaling to us where for the safety of the ship we ought anchor in the port, continually accompanying us until we cast anchor there.

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[80] *Rm.* nude except the private parts which they cover.

[81] *F.* Soria.

[82] *F.* because it is held very worthless on account of the yellow color which they abhor.

[83] *F.* kind *of cloth.*

[84] *F.* tattooed and bedecked. *Rm.* all painted.

Fifteen Days Among the Indigines of "Refugio."

In which[85] we remained XV days, supplying ourselves with many necessities; where every day the people came to see us at the ship, bringing their women, of whom they are very careful;[86] because, entering the ship themselves, remaining a long time, they made their women stay in the barges, and however many entreaties we made them, offering to give them various things, it was not possible that they would allow them to enter the ship. And one of the two Kings coming many times with the Queen and many attendants through their desire to see us, at first always stopped on a land distant from us two hundred paces, sending a boat to inform us of their coming, saying they wished to come to see the ship; doing this for a kind of safety.[87] And when they had the response from us, they came quickly, and having stood awhile to look, hearing the noisy clamor of the sailor crowd,[88] sent the Queen[89] with her damsels in a very light barge to stay on a little island distant from us a quarter of a league; himself remaining a very long time, discoursing by signs and gestures of various fanciful ideas, examining all the equipments[90] of the ship, asking especially their purpose, imitating our manners,[91] tasting our foods, then parted from us benignantly. And one time, our people remaining two or three days on a little island near the ship for various necessities as is the custom of sailors, he came with seven or eight of his attendants, watching our operations, asking many times if we wished to remain there for a long time, offering us his every help. Then, shooting with the bow, running, he performed with his attendants various games to give us pleasure.

Many times we were from five to six leagues inland which we found as pleasing as it can be to narrate, adapted to every kind of cultivation,—grain, wine, oil. Because in that place the fields

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85 *F.* on account of which.
86 *F.* and *Rm.* jealous.
87 *F.* security; *Rm.* sign of security.
88 *Rm.* hearing the shouts and clamor of the mariners.
89 *Rm.* madam the Queen . . . remained.
90 *Rm.* all the apparatus and furniture of the ship.
91 *Rm.* he also took pleasure in seeing our clothes.

are from XXV to XXX leagues wide,[92] open and devoid of every impediment of trees, of such fertility that any seed in them would produce the best crops. Entering then into the woods, all of which are penetrable by any numerous army in any way whatsoever, and whose trees, oaks, cypresses, and others, are unknown in our Europe. We found Lucallian apples,(*m*)[93] plums and filberts, and many kinds of fruits different from ours. Animals there are in very great number, stags, deer, lynx, and other species, which, in the way of the others, they capture with snares and bows which are their principal arms. The arrows of whom are worked with great beauty, placing at the end, instead of iron, emery, jasper, hard marble, and other sharp stones, by which they served themselves instead of iron in cutting trees, making their barges from a single trunk of a tree, hollowed with wonderful skill, in which from fourteen to XV[94] men will go comfortably; the short oar, broad at the end, working it solely with the strength of the arms at sea without any peril with as much speed as pleases them.

(*m*) *or cherries.*

THE COUNTRY OF "REFUGIO." THE SICILIAN LAMENTATION.

Going further,[95] we saw their habitations, circular in form, of XIIII to XV paces[96] compass, made from semi-circles of wood [i. e. arched saplings, bent in the form of an arbor] separated one from the other, without system of architecture, covered with mats of straw ingeniously worked, which protect them from rain and wind. There is no doubt that if they had the perfection of the arts[97] we have, they would build magnificent edifices,[98] for all the maritime coast is full of blue rocks,[99] crystals and alabaster; and for such cause is full of ports and shelters for ships.[100] They

92 *F.* broad.
93 See Italian text.
94 *F.* and *Rm.* 10 and 12 men.
95 See Italian text. *Rm.* omits.
96 *F.* and *Rm.* 10 to 12 paces.
97 *Rm.* the system of building and the perfection.
98 *Rm.* grand and superb edifices.
99 See Italian text.
100 *F.* shelters for animals. *Rm.* for ships.

change said houses[101] from one place to another according to the opulence of the site and the season in which they live. Carrying away[102] only the mats, immediately they have other habitations made. There live in each a father and family to a very large number, so that in some we saw XXV and XXX souls. Their food is like the others: of pulse (which they produce with more system of culture than the others, observing the full moon, the rising of the Pleiades,[103] and many customs derived from the ancients,) also of the chase and fish. They live a long time *and rarely* incur illness; if they are oppressed with wounds,[104] without crying[105] they cure themselves by themselves with fire, their end being of old age. We judge they are very compassionate and charitable toward their relatives, making them great lamentations in their adversities, in their grief calling to mind all their good fortunes. The relatives, one with another, at the end of their life use the Sicilian lamentation,[106] mingled with singing lasting a long time. This is as much as we were able to learn about them.

In the Parallel of Rome. The "Petra Viva."

The land is situated in the parallel of Rome, in forty and two-thirds degrees,[107] but somewhat colder on account of chance and not on account of nature, as I will narrate to Your Majesty in another part, describing at present the situation of said port. *The shore of said land runs from west to east. The mouth of the port(n)* looks toward the south, half a league wide, after entering which between east and north it extends XII leagues, where, widening itself, it makes an ample[108] bay of about XX leagues in circuit. In which are five little islands of much fertility and beauty, full of high and spreading trees, among which any nu-

101 *F.* they change said things. *Rm.* they transport the said houses.
102 *F.* experience of the site and the season. Having lived in that (place) they carry away.
103 *F.* Ihade. *Rm.* some stars.
104 *F.* sign of omission.
105 *Rm.* with any infirmity without physician.
106 *Rm.* omits "Sicilian."
107 *F.* and *Rm.* parallel of Rome in forty-one and two-thirds degrees.
108 *F.* very ample.

merous fleet,[109] without fear of tempest or other impediment of fortune, could rest securely.[110] Turning thence toward the south to the entrance of the port, on one side and the other are very charming hills with many brooks, which from the height to the sea discharge clear waters.

In the midst of the mouth is found a rock of Petra Viva produced by nature, adapted for the building of any desired engine or bulwark for its protection.[111] (*o*)

(*n*) *which on account of its beauty we called "Refugio."*

(*o*) *which on account of the nature of the stone and on account of the family of a gentlewoman we called "La Petra Viva;" on whose right side at said mouth of the port is a promontory which we called "Jovio Promontory."*

AT THE "SHOALS OF ARMELLINO" AND AT THE "PROMONTORY PALLAVICINO" (CAPE COD).

Being supplied with our every necessity, the 6th[112] day of May we departed from said port, following the shore, never losing sight of the land. We sailed one hundred and fifty leagues, (*p*) finding it of the same nature and somewhat higher with some mountains (*q*) which all indicated minerals. We did not stop there because the favorableness of the weather served us in sailing along the coast:[113] we think it must conform to the other. (*r*) The shore ran to the east.

(*p*) *within which space we found shoals which extend from the continent into the sea* 50 *leagues. Upon which there was over* 3 *feet of water; on account of which great danger in navigating it, we survived with difficulty and baptized it "Armellini."*

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109 *F.* among which islands any number of fleets *Rm.* any huge armada.
110 *F.* secure.
111 *Rm.* fortress for protection.
112 *Rm.* 5th day.
113 *Rm.* omits "in sailing along the coast."

(*q*) *with a high promontory which we named "Pallavisino."*

(*r*) *people.*

The "Land of Bad People."

In the space of fifty leagues, holding more to the north, we found a high land full of very thick forests, the trees of which were pines, cypresses[114] and such as grow in cold regions. The people all different from the others, and as much as those passed were of cultivated manners, these were *full of* uncouthness[115] and vices, so barbarous[116] that we were never able, with howsoever many signs we made them, to have any intercourse with them. They dress with the skins of bear, lynxes, sea-wolves, and other animals. The food, according to that which we were able to learn through going many times to their habitations, we think is of the chase, fish and some products which are of a species of roots which the ground yields by its own self. They do not have pulse, nor did we see any signs of cultivation, nor would the ground, on account of its sterility, be adapted to produce fruit or any grain. If, trading[117] at any time with them, we desired their things, they came to the shore of the sea upon some rock where it was very steep, and — we remaining in the small boat,— with a cord let down to us what they wished to give, continually crying on land that we should not approach, giving[118] quickly the barter, not taking in exchange for it except knives, hooks[119] for fishing, and sharp metal. They had no regard for courtesy, and when they had[120] nothing more to exchange, at their departing the men made at us all the signs of contempt and shame[121] which any brute creature[122](*s*)

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114 *F.* and *Rm.* cypresses.
115 *F.* rusticity.
116 *F.* faces so barbarous.
117 *F.* refusing.
118 *F.* demanding.
119 See Italian text.
120 *Rm.* we had.
121 *F.* immodesty.
122 *Rm.* any inhuman and discourteous creature.

could make. Contrary to their wish, XXV *armed* men of us were inland two and three leagues,(*t*) and when we descended to the shore they shot at us with their bows, sending forth the greatest cries, then fled into the woods. We do not know any value of any moment in this land except the very great forests, with some hills which possibly have some metal, because on many [natives] we saw " pater-nosters " of copper in the ears.

(*s*) *such as showing the . . . and laughed.*
(*t*) *they are in* 43⅔

THE DALMATIA OF THE NEW WORLD. THE RETURN.

We departed, skirting the coast between east and north, which we found very beautiful, open and bare of forests, with high mountains back inland, growing smaller toward the shore of the sea. In fifty leagues we discovered XXXII islands,(*u*) all near to the continent, small and of pleasing appearance, high, following the curving[123] of the land, among which were formed most beautiful ports and channels, as are formed in the Adriatic Gulf, in the Illyrias[124] and Dalmatia. We had no intercourse with the peoples and think[125] *they were,* like the others, devoid[126] of morals and culture.

Navigating between east-south-east and north-north-east, in the space of CL leagues *we came near the land which the Britons found in the past,*[127] *which stands in fifty degrees,* and having consumed all our naval stores and victuals, having discovered six hundred leagues and more of new land, furnishing ourselves with water and wood, we decided to turn toward France.

(*u*) *among which we called the three larger " The Three Daughters of Navarra."*

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123 *F.* greenness *Rm.* many turns.
124 *Rm.* in the Adriatic Gulf in Slavonia.
125 *F.* they stand.
126 *Rm.* omits " devoid."
127 See Italian text.

The Indigines Without Religion.

How much religion these peoples whom we have found have, we were not able to learn, through lack of language, either by signs or any gestures. We consider they have neither religion nor law, nor know a First Cause or Author,[128] nor worship the sky, stars, sun or moon or other planets, nor have any species of idolatry, nor did we learn that they make sacrifice or other prayers; nor that their villages had temples or churches for prayer.

We think they have not any creed and live in entire freedom,[129] and everything proceeds from ignorance, for they are very easy to persuade, and did with as much enthusiasm and fervor as we all that *which by us* Christians they saw done concerning the divine worship.

The Longitude Covered. The Astronomical Diary.

It remains for me to narrate to Your Majesty the order of said navigation as it bears on Cosmography. As I said above, departing from the aforesaid rocks which are situated in the extremity of the west known to the ancients, and in the meridian described by the Fortunate Islands, in latitude of XXXII degrees from the equator in our hemisphere, we sailed to the west, as far as the first land we found, MCC leagues, which contain 4,800 miles, counting four miles per league according to the maritime usage of naval experts:[130] "geometrically," according to the proportion of three and one sesqui-seventh times[131] the diameter to the circumference, $92\frac{5}{4}\frac{4}{7}\frac{1}{2}\frac{6}{7}\frac{4}{3}\frac{}{3}$ degrees.[132] That should be, because the chord of the arc of the great circle being $114\frac{6}{11}$ degrees, [and] the chord of the parallel of 34 degrees of the first land found by us, according to the same proportion, $95\frac{2}{4}\frac{3}{5}\frac{3}{0}$ degrees,[133] the circumference of all the circle is shown to be $300\frac{7}{1}\frac{1}{5}\frac{3}{7}\frac{}{5}$ degrees;[134] which, allow-

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128 *F.* nor know one by one cause and author.
129 *F.* in this freedom.
130 See Italian text.
131 See Italian text.
132 *F.* 92 $\frac{5}{4}\frac{4}{7}\frac{6}{2}\frac{4}{7}\frac{}{3}\frac{}{3}$ degrees.
133 *F.* 95 $\frac{2}{4}\frac{3}{5}\frac{3}{0}$ degrees.
134 *F.* 300 $\frac{3}{1}\frac{1}{5}\frac{3}{7}\frac{}{5}$ degrees.

ing for each degree 62½ miles, as the greater part of those who have experimented assure us they correspond on earth to the proportion of the heavens, should give us 18,759 $\frac{31}{126}$ miles,[135] which divided into 360 *parts,* would give for each 52 $\frac{989}{9072}$ miles.[136] And such is the value of a degree of longitude in said parallel of 34 degrees, from which, in a straight *line,* from the meridian of said rocks which stand in 32 degrees, we have calculated the reckoning. Since[137] we have found the said 1200 leagues in a straight line from west to east, in 34 degrees, it traverses therefore through that [distance] the 92 $\frac{541164}{472773}$ degrees,[138] and so much have we sailed farther to the west unknown to the ancients in said parallel of 34 degrees.*

This longitudinal distance was known to us navigating with various instruments, without lunar eclipses or other phase by the motion of the sun, always taking the elevation at any desired hour by the difference the ship made running from one horizon to another; "geometrically" the interval from one meridian to another was known[139] to us; as I have noted all fully in a little book, together with the rising of the tide, in whatever region, at any time and hour, which I think would prove to be not useless for navigators.

I hope, for better speculation, to discuss it with Your Majesty.

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135 *F.* 18579 $\frac{31}{126}$ miles.

136 *F.* 52 $\frac{1989}{9072}$ miles.

137 *F.* the reckoning in this that.

138 *F.* 92 $\frac{541164}{472733}$ degrees.

139 *F.* was not known.

* Verrazzano's reference to the number of "degrees" in the "chord," etc., is confusing to one who does not understand what he means. In plain language, his argument is as follows, using his figures but changing his words: If a great circle, such as the equator, be divided into 360 parts, each part will contain 62½ miles. If there are 360 such parts in the circumference of the circle, then, according to the ratio of circumference to diameter, 3 $\frac{3}{14}$ to 1, there are in the diameter only 114 $\frac{6}{11}$ such parts of 62½ miles each. (He uses the word "chord" for diameter.) Now, if the diameter of a great circle contains 114 $\frac{6}{11}$ such parts, the diameter of a circle lying in the plane of 34° of latitude will contain only 95 $\frac{330}{452}$ such parts, and multiplying that diameter by 3 $\frac{1}{4}$, he finds the circumference of a circle in 34° of latitude to contain 300 $\frac{713}{1575}$ such parts of 62½ miles each. The last two figures multiplied together give him 18,759 $\frac{31}{126}$ miles in the circumference of the circle in 34°. Then dividing 18,759 $\frac{31}{126}$ into 360 equal parts or degrees, he finds that a degree of longitude at the height of 34° of latitude measures 52 $\frac{9072}{989}$ miles. As he estimated that he had sailed westward 1,200 leagues or 4,800 miles in that latitude, he divides 4,800 by 52 $\frac{289}{9072}$ and finds that he sailed through 92 $\frac{541164}{472733}$ degrees of longitude. That is the substance of his method, although his fractions are not always accurate.— Translator.

The Object of the Voyage.

My intention was in this navigation to reach Cathay *and* the extreme east of Asia, not expecting to find[140] such an obstacle of new land as I found; and if for some reason I expected to find it, I thought it to be not without some strait[141] to penetrate to the Eastern Ocean. And this has been the opinion of all the ancients, believing certainly our *Western* Ocean to be one *with* the Eastern Ocean of India without interposition of land. This Aristotle affirms, arguing by many similitudes, which opinion is very contrary to the moderns and according to experience untrue.[142] Because the land has been found by them unknown *to the* ancients, another world with respect to the one which was known to them, it manifestly shows itself to be larger[143] than our Europe and Africa and almost Asia, if we estimate correctly its size; as briefly I will give Your Majesty a little account of it.

The New Lands Form a Great Continent.

Beyond the equator, distant from the meridian of the Fortunate Islands[144] toward the west $20\frac{32062}{47781}$ (145) degrees, the Spaniards (*r*) have navigated 54 degrees toward the south, where they have found land without end. Turning thence toward the north along said meridional line, following the coast as far as 8 degrees[146] .....$89\frac{2970}{46781}$ (147) they have navigated, which, joined to the $20\frac{32060}{46781}$ make $110\frac{44830}{46783}$. And so much have they navigated from said meridian of the Fortunate Islands farther west in the parallel of 21 degrees of latitude.

This distance has not been actually measured by us, on account of not having made said navigations; it may vary more or less.

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140 *F.* expecting not to find.
141 See Italian text.
142 *F.* and the experience false.
143 *F.* and of greater size.
144 *F.* from the Fortunate Islands.
145 *F.* $20\frac{32060}{47781}$ degrees.
146 *F.* supplies the omission of *R.* . . . *near the equator farther west, bearing more to the north along said meridional line, following the shore as far as* 21 *degrees, not finding an end,* [$89\frac{2970}{46781}$] *degrees.*
147 *F.* $89\frac{29702}{46782}$ degrees.

We have calculated it "geometrically" according to the observations of many *expert* naval scientists who have frequented it, who affirm it to be 1600 leagues, judging by estimate the course of the ship according to the character of the wind for continuous navigation.

I hope in a short time we shall have (*w*) the utmost certainty(*x*) of it.

On the other hand, we, in this navigation made by order of Your Majesty beyond 92 degrees, *etc.* from said meridian toward the west to the land we first found in 34 degrees,(*y*) navigated 300 leagues between east and north and almost 400 leagues to the east uninterruptedly along the shore[148] of the land, attaining to 54 degrees,[149] leaving the land that the Lusitanians(*z*) found a long time ago, which they followed farther north as far as the Arctic circle leaving the end unknown. Therefore the northern latitude joined with the southern, that is, 54 degrees with 66 degrees, make 120 degrees, more latitude than Africa and Europe contain, because joining the extremity of Europe, which the limits of Norway[150] form [and] which stand in 71 degrees, with the extremity of Africa, which is the Promontory[151] of Good Hope in 35 degrees, makes only 106 degrees, and if the terrestrial area[152] of said land corresponds in extent to the seashore, there is no doubt it exceeds Asia in size.

(*v*) *that is, Magellan.*
(*w*) *See Italian text.*
(*x*) *for the benefit of posterity.*
(*y*) *land near Temistitan.*
(*z*) *that is, Bacalaia, so called from a fish.*

PROPORTION BETWEEN LAND AND WATER IN THE GLOBE.

In such way we find the globe of the Earth much larger than the ancients have held and contrary to the Mathematicians[153] who have *considered* that relatively to the water it [the land] was smaller, which we have found by experience to be the reverse.

148 See Italian text.
149 *F.* 50 degrees.
150 See Italian text.
151 *F.* promontory of the Cape.
152 *F.* the equestrian.
153 See Italian text.

And as for the corporeal area[154] of space, we judge there cannot be less land than water, as I hope on a better occasion by further reasoning to make clear and proven[155] to Your Majesty.

The New World is Isolated.

All this land or New World which above I have described is connected together, not adjoining Asia nor Africa[156] (which I know to a certainty); it may join Europe by Norway[157] and Russia; which would be false according to the ancients, who declare almost all the north[158] from the promontory of the Cimbri to have been navigated to the east, going around as far as the Caspian Sea[159] itself they affirm. It would therefore remain included between two seas,[160] between the Eastern and the Western, and that, accordingly (secondo,)[161] shuts off[162] one from the other; because beyond 54 degrees from the equator toward the south it [the new land] extends toward the east for a long distance, and from the north[163] passing 66 degrees it continues, turning toward the east, reaching as far as 70 degrees.

I hope we shall have[164] better assurance of this, with the aid of Your Majesty, whom God Almighty prosper in everlasting glory, that we may see the perfect end of this our cosmography, and that the sacred word[165] of the evangelist may be accomplished: *"Their sound has gone out into all the earth,"* etc.

In the ship Dauphine,[166] VIII of July, M.D.XXIIII.

Humble servant,[167] JANUS VERAZANUS[168]

To Leonardo Tedaldi or to Thomaso Sartini, merchants in Lyons. To be forwarded to Bonacorso Ruscellay.

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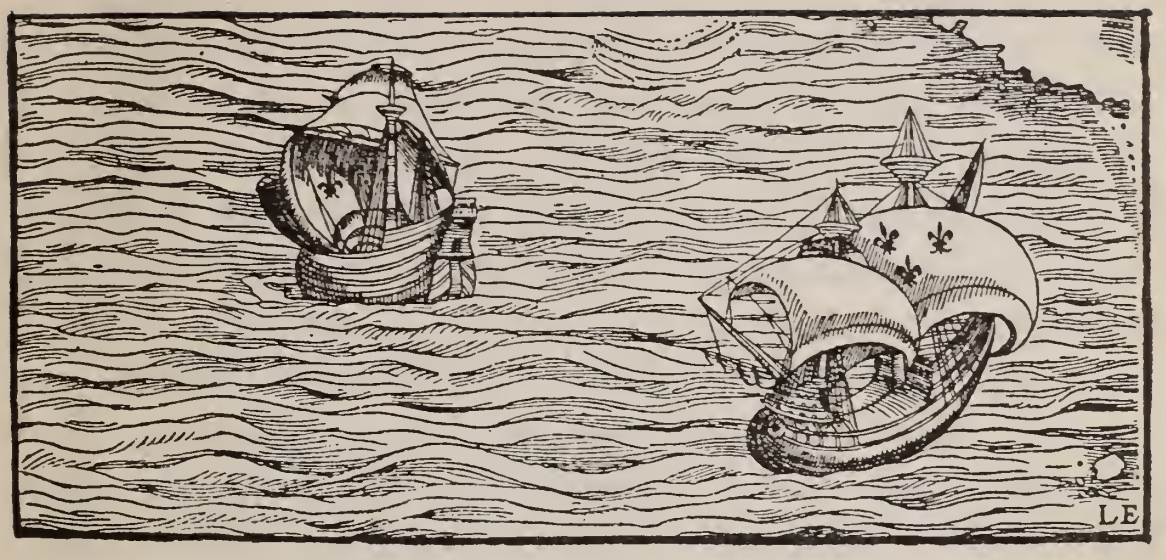
154 *F.* for the air.
155 *F.* I hope on a better occasion with further reasoning to experiment and demonstrate.
156 *F.* adjoining Asia and Africa.
157 See Italian text.
158 See Italian text.
159 *F.* going around about the Caspian Sea. *C.* Cassino Sea.
160 *F.* *alone* included between two seas *situated.*
161 *F.* and those two.
162 *C.* guides.
163 See Italian text.
164 *F.* We shall have soon.
165 See Italian text.
166 *F.* in the ship Dauphine in Normandy in the port of Dieppe.
167 *F.* most humble servant.
168 *C.* Iohanne Verazano.



(dal Ramusio)

Caravalle francesi.

Il Commentario della "DELFINA" e del suo viaggio.

A Re Francesco I di Francia.

Di poi la fortuna passata nele plaghe septemtrionali, Ser^mo^ Re, non scripsi a V. M.^tà^ quello che era seguito delle quattro navi,[19] che Quella mandò per l'Oceano in discoprire nuove terre, pensando di tutto sia stata certificata come da la impetuosa forza de' venti fumo constrecti con solo la NORMANDA et la DALPHINA aflicte, ricorrere in Brectagna; dove restaurati, harà V. S.^ma^ M.^tà^ inteso il descorso facemo con quelle, armate in guerra, per i liti di Hispagna[20] Di poi la nuova dispositione con solo la DALPHINA[21] in seguire la pristina navigatione:[22] da la quale essendo ritornato dirò a V. M. quello habbiamo trovato.

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[19] *F.* quattro legni.

[20] *Rm.* per i liti di Spagna ce n'andammo in corso: *il che V. M. haverà inteso per il profitto che ne facemmo.*

[21] *Rm.* di poi con la Delfina sola si fece deliberazione scoprir nuovi paesi per non lasciar imperfetta la già cominciata navigazione.

[22] *F.* prima navigatione.

Da Madera al Nuovo Mondo. Tempesta nell'Oceano

Da lo deserto scopulo propinquo a la Jnsula di Madera del Ser^mo Re di Portogallo(*a*) con la detta DALPHINA adì XVII del mese di gennaio passato con cinquanta huominj forniti di vectovaglie, arme et altri strumenti bellici et munitioni navali per octo mesi, partimo navigando per Zeffiro, spirando Subsolano con dolce et suave lenità.[23] In giorni XXV corremmo leghe octocento. Il dì XXIIII di febraio[24] (*b*) passammo una tormenta tanto aspra quanto mai homo che navicassi passassj. Da la quale col divino aiuto et bontà della nave, dal glorioso nome et fortunato fato[25] acta a sopportare le violente onde del mare, fumo liberj.[26] Seguimmo nostra navigatjone continuo verso l'Occidente, piglando alquanto del Septentrione. In altri giornj XXV corremmo più oltre a leghe 400, dove ne apparse una nuova terra mai più da alcuno antico o moderno vista.

(*a*) *cominciando el* 1524. [La stessa mano avevo scritto 1523, poi corresse il 3 in 4.]
(*b*) *forse le* 16 *ore.*

La Terra prima vista a 34° di Lat. N.

Mostravasi alquanto bassa al principio; aprossimatici a uno quarto di legha, conoscemo quella, per grandissimi fuochi facevano al lito del mare, essere habitata. Vedemmo correa verso l'Austro: lustrandola per trovare[27] alcuno porto dove potessimo[28] con la nave surgere et investigare la natura di quella, in spatio di leghe cinquanta non trovammo porto o sito alcuno dove potessimo *con la nave* posarci. Et visto continuo tendeva verso l'Austro(*c*) deliberammo tornare a rigarla verso il Septemtrione dove el medesimo trovamo.[29] Surgemmo a la costa mandando

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[23] *F.* levità.
[24] *Rm.* alli 20 febbraro.
[25] *F.* bontade et laude del glorioso nome et fortunato fatto. *Rm.* bontà della nave accompagnata con la felicità del suo nome.
[26] *Rm.* e il mare abbonacciato con prospero vento.
[27] *Rm.* cercando in lei ritrovare.
[28] *F.* porto prossimo.
[29] *Rm.* dove nella medesima difficultà ci ritrovammo.

el batello a terra. Havemmo vista di molta gente, quali venivano al lito del Mare et veggiendone aproximare fuggivano; alcuna volta fermandosi voltavonsi a drieto con grande amiratione riguardando. Assicurandoli con varj segni venivano alcunj di quellj mostrando grande allegreza in vederci, maraviglandosi dei nostri habiti, effigie et biancheza[30] facendone vari segni dove col batello potessimo più comodi ascendere, offerendone di loro vivande.

(*c*) *per non incapar in Spagnoli.*

Il primo sbarco e i primi indigeni

Fumo alla terra, et quello che possemo di loro vita et costumi conoscere, in brevità dirò a V. M^tà^.

Vanno del tucto nudi salvo che alle parti pudibunde portano alcune pelle di piccioli animalj similj a Martore, una cintura di herba *angusta,* tessuta con varie code di altri animalj che pendano circuendo el corpo per insino a le ginocchia; el resto nudo, el capo simile. Qualchunj portano certe grillande[31] di penne di uccelli. Sono di colore nerj non molto da gli Etiopi disformi,[32] e' chapelli nerj et folti, et non molti lunghi, quali leghano insieme drieto a la testa in forma d'una piccola coda. Quanto a la simetria dell'homo[33] sono bene proportionatj, di mediocre statura, et più presto a noj excedano. Nel petto sono larghi, ne le braccia disposti, le gambe et altre parti del corpo bene composti. Non hanno altro che alquanto nel viso tendano in largheza: non però tucti, chè a molti vedemmo el viso profilato. Li occhi negri et grandi, la guardatura fisa *et prompta.* Sono di forza non molta, d'ingegno acuti, agili et grandissimi corridorj. Per quello possemo per experientia conoscere, assomiglano per li duoj extremi agli Orientali et maxime a quelli de le ultime regionj *sinare.*[34] Non possemo di questa gente di loro vita et costumi in particularità intendere per la poca di stanza facemo a la terra per esser *poca gente et la nave surta in alto mare.*[35]

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[30] *F.* fiure et biancheza.
[31] *F.* grillande simili.
[32] *Rm.* sono di color berrettini e non molto dalli Saracini differenti.
[33] *F.* similitudine dell'homo.
[34] *Rm.* regioni della China.
[35] *F.* per esser suta l'onde alla piaggia.

"Selva di Lauri" e "Campo di Cedri".

A la piaggia trovammo, non lungi da questi, altrj popolj, de' quali pensiamo il vivere sia conforme. *A presso lo dirò a V. M.ta, narranda al presente il sito et natura di decta terra.* El lito *marictimo* è tutto coperto di minuta harena alto piedi XV, stendendosi in forma di piccolj collj, largo[36] circa a passj cinquanta. Di poi ascendendo[37] si truovano alcunj rivi et bracci di mare che entrano per alcune focie, rigando il lito[38] da l'una et l'altra parte come corre la versura di quello.[39] Apresso si mostra la terra lata tanto eminente che excede al lito arenoso con *molte* belle campagne et planitie[40] piene di grandissime selve, parte rare et parte dense, vestite di tanti colorj[41] d'alberj, di tanta vagheza et dilectevole guardatura, quanto exprimer sia possibile. Et non creda, *V. M.ta,* queste sieno come l'Hercinia Selva o l'aspre solitudini della Scithia[42] et plaghe septemtrionali, piene di rudi alberj,[43] ma ornate *e vestite* di palme, lauri, cipressi[44] et

> (*d*) *Baptizamo questa terra* Selva di Lauri *e poco più giù per li belli cedri imposto gli fu el nome* Campo di Cedri.
>
> (*e*) *Sentimo l'odor cento leghe, e più quando brugiaveno i cedri et li venti spiraveno da terra.*

d'altre varietà d'alberi incogniti nella nostra Europa.(*d*) E' qualj da lungi spatio spirano suavissimj odorj(*e*) de' quali *la proprietà* non possemmo conoscere, per la causa di sopra narrata, non che a noi fussi difficile per le selve[45] discorrere, *imperò* chè

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[36] *Rm.* va ascendendo circa piedi 15 estendendosi in forma di piccioli colli larghi.
[37] *Rm.* di poi navigando.
[38] *Rm.* bagnando il lito.
[39] *F.* el lito di quello. *Rm.* la volta di quello.
[40] *F.* provincie.
[41] *F.* di vari colori. *Rm.* varie sorti d'arbori.
[42] *Rm.* solitudini della Tartaria.
[43] *F.* piene di viti et albori. *Rm.* salvatichi arbori.
[44] *Rm.* alti cipressi (trovavasi *alti* anche in *R.*, ma fu cancellato).
[45] *F.* per la selva.

non tanto è la densità di quelle che per tutto non sieno penetrabilj. Ne pensiamo, partecipando dell'Oriente per la circumferentia, non sieno sanza qualche drogheria o liquore aromatico. Et altre divitie: oro,[46] del quale la terra in tal colore tutta tende. È copiosa di molti animalj, cervi, dainj, lepre; simile di laghi et stagni di viva acqua con vari numerj di uccellj acti et comodi a ognj dilectevole piacere di venatione.[47]

Salubrità e dolcezza del clima

Sta questa terra in gradi 34.(*f*) L'aria salubre pura et temperata dal caldo et freddo; venti non impetuosi in quelle regioni spirano et quelli che più continuo regnano sono Coro et Zephiro[48] al tempo estivo, *al principio* del quale noi fumo;(*g*) il celo *chiaro et* sereno con rara pluvja et se qualche volta da venti australj l'aria incorre in qualche bruna, o caligine,[49] in uno stante non durando è disfacta, ritornando pura et chiara; el Mare tranquillo et non fluctuoso l'onde del quale sono placide. Et ancora che il lito tenda tucto in basseza et nudo di porti, non però è infesto a naviganti,[50] essendo tutto netto et senza alcuno scopulo; profondo che per insino a quactro o cinque passi presso a la terra si truovano, sanza flusso né reflusso, piedi XX d'acqua crescendo *a* tale proporzione uniforme la profondità[51] nel pelago: con tanto buono tenitorjo,[52] che qual si voglia nave da tempesta aflitta maj in quelle parti non rompendo le fune potrà[53] perire. Et di questo la experientia noi abbiamo provata; imperochè più volte nel principio di marzo come sempre in ogni regione esser suole le forze de' venti, sendo in alto mare surti, da procelle oppressi, prima trovamo l'ancora rotta che nel fondo arassi, o facessi movimento alcuno.

(*f*) *come Carthagine e Damascho.*
(*g*) *in quelle regioni.*

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46 *F.* oro et altro.
47 *Rm.* piacere di cacce.
48 *F.* Eoro. *Rm.* sono Maestro e Ponente.
49 *F.* bruina. *Rm.* nebbia e caligine.
50 *Rm.* fastidioso a naviganti.
51 *F.* alle profondtà.
52 *F.* territorio. *Rm.* sorgidore.
53 *Rm.* le gomene potrà.

Un marinaio tra gl'indigeni
La terra dell' "Annunziata" e l' "Istmo Verrazzanio"

Partimo da questo luogo continuo scorrendo la costa, quale trovamo tornava al Oriente. Veggiendo per tutta quella grandissimj fuochj per la moltitudine delli habitatori, surgendo a quella a la piaggia,[54] per non tenere porto alcuno, per necessità d'acqua mandammo el batello a terra con XXV huomini. Per le grandissime onde gittava il mare al lito per essere la piaggia aperta, non fu possibile, senza pericolo di perdere il batello, alcuno potessi a la terra ascendere. Vedemmo molta gente al lito facendone vari segni d'amistà; monstrando fussimo a terra; fra quali vidi uno atto magnifico, come intenderà V. M.tà.

Mandando a nuoto uno dei nostri giovanj marinarj a terra, portando a quellj alcune fantasie, come sonaglj,[55] specchi et altre gentileze, et essendo a 4 braccia giunto proximo a quelli, gittando loro le mercie et volendo adrieto tornarsi fu tanto da l'onde remosso, che quasi *semimorto* cadde transportato a la riva del lito. El quale visto le gente de la terra subito corsono: piglandolo per la testa, gambe et braccia, lo portorono alquanto lontano. Onde veggiendo il giovane in tal modo[56] portarsj, da terrore spaventato, metteva grandissimi gridi. Il che loro simile in loro lingua facevano dimonstrandolj non temessi. Di poi quello in terra *al sole,* a pie' d'un piccolo colle, posto facevano grandissimj attj di amiratione, guardando la biancheza de le sue carne, lineandolo per tutto.[57] Spogliandolj la camicia et calciamenti, restato nudo, feciono apresso di quello uno grandissimo foco, aproximandolo al calore. Il che visto e' marinarj ch'erano nel batello restati pieni di spavento, come in ogni caso nuovo è costume di quelli, pensavono per cibo lo volessino arrostire. Rihavute le forze, con quelli alquanto dimorato, per segnj mostrò volere ritornarsi alla nave, e' qualj con grandessimo amore tenendolo sempre stretto con varj abracciamenti lo accompagnorno per

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54 *F.* surgendo in quella piaggia.

55 *Rm.* per mandarli delle cose nostre e da Indiani comunemnte molto desiderate e apprezzate come sono fogli di charta, sonagli.

56 *F.* in tal forma.

57 *Rm. omette* lineandolo per tutto.

insino al mare, et per più assicurarlo allargandosi in un colle eminente stetteno a riguardarlo per insino fu nel batello. Quello el giovane di questa gente conobbe che tale sono: di colore nero come gl'altrj, le carne molto lustre, di mediocre statura, el viso più profilato, del corpo et altri membrj assaj. più delicati, di molta poca forza et più presto de ingegno. Altro non vidde. (*h*)[58]

(*h*) Appellavimus ANNUNCIATAM a die adventus, *ovi trovasi uno isthmo de largheza de uno miglio e longo circa a* 200, *nel quale de la nave si vedea el mare orientale mezo tra occidenta* [prima era stato scritto "l'oriente"] *e septentrione. Quale è quello senza dubio che circuisce le extremità de la India, Cina e Catayo. Navicamo longo al detto isthmo con speranza continua di trovar qualche freto* [dopo questa parola era scritto "a fine de," ma fu cancellato] *o vero promontorio, al quale finisca la terra verso septentrione per poter penetrare a quelli felici liti del Catay. Al quale isthmo si pose da lo inventor* [*nome* ISTHMO] VERAZANIO: *coscî, come tutta la terra trovata, se chiamò* FRANCESCA *per il nostro Francesco.*

TRE GIORNI NELL' "ARCADIA." UN FANCIULLO RAPITO

Di qui partiti seguendo sempre il lito che tornava alquanto verso septemtrione, pervenimmo in spatio di leghe cinquanta a un'altra terra che molto *più* si mostrava bella et piena di grandissime selve. Surgendo a quella, andando XX huominj circa leghe dua infra terra, trovammo le gente per paura s'erano fuggite a le selve. Cercando per tutto, scontrammo *in* una femina molto vecchia et una giovane di anni XVIIJ in XX, le qualj per timore s'erano nascoste fra l'herba. Havea la vecchia dua fanciullette, qualj portava sopra a le spalle, et drieto al collo

[58] *Rm.* altro non viddi.

uno fanciullo tutti di età d'anni octo.[59] *Simili tanti ne havea la giovane, ma tutte femine.* Giunti a quelle, cominciorono a gridare. *La vecchia* a farne segno li hominj s'erano fuggiti a le selve. Donammolj a mangiare de le nostre vivande, quale con gran gusto acceptava:[60] la giovane tutto renuntiava et con ira a terra gittava. Piglamo el fanciullo a la vecchia per menare in Francia et volendo prendere la giovane, quale era di molta belleza et d'alta statura, non fu maj possibile per li grandissimj gridi spandeva, la potessimo condurre al mare. Et havendo a passare per alcune selve, essendo da la nave lungie, deliberammo lasciarla portando solo el fanciullo.

Le piante tessili e l'uva. L'offerta del foco

Costoro trovammo più bianchj che li passati, vestiti di certe herbe che stanno pendenti a li rami de l'alberj, quali tessano con varie code di canapa silvestre.[61] El capo nudo nela medesima forma delli altrj. Il viver loro in genere è di legumi, de' quali abundano differenti ne' colorj et grandezza da nostri di optimo, et dilectevole sapore, inoltre di venatione pesci et uccellj, quali piglano con archi et con lacci. [Li archi] fanno di duro legno, le freccie di calamo, ne la extremità mettendo ossi di pesci et d'altri animali. Sono in quelle parte le fiere assaj più salvatiche che nella nostra Europa, per la continova molestia hanno da venatorj. Vedemmo molte di loro barchette construtte di uno solo albero, lunghe piedi venti, larghe quactro, *quali* non con pietra, ferro o altro genere di metallj, sono fabricate. Imperochè *in* tutta quella terra in spatio di leghe dugento che noi corremo, una sola pietra, d'alcuna spetie da noi fu vista. Aiutansi del quarto elemento,[62] ardendo del legno tal parte quanto basti a la concavità de la barca: simile de la poppa et prora tanto che navigando possa solcare l'onde[63] del mare.

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[59] *F.* d'anni octo *incirca*, *Rm.* un fanciullino d'anni octo in circa.
[60] *F.* accettorno.
[61] *Rm.* corde di canapa salvatica.
[62] *Rm.* aiutansi col fuoco.
[63] *Rm.* sopportare l'onde.

La terra del sito, bontà et belleza, è come l'altra; le selve rare; di vario genere d'alberi piena, ma non di tanto odore, per esser più septentrionale et fredda. Vedemmo in quella molte vite da la natura prodotte, quali alzando, s'avvoltano a li alberj, come ne la Cisalpina Gallia costumano:[64] quali, se dagli agricoltori havessino el perfetto ordine di cultura, sanza dubio, produrrebbono optimi vini, perchè più volte il frutto di quelle *seco* veggiendo[65] suave et dolce, non dal nostro differente. Sono da loro tenute in stimatione, imperochè per tutto dove nascono lievano li arbucelli[66] circumstanti a causa il frutto possino germinare. Trovamo rose silvestre, viole et lilij et molte sorte d'herbe et fiorj odoriferi da nostrj differenti. Le habitationj loro non conoscemmo per essere drento in fra terra. Stimiamo per molti segni vedemo, sieno di legno e di herbe composte; credendo ancora per varie coniecture et segni, molti di quelli dormendo a la campagna altro che il cielo non habbino per copertura. Altro di costoro non conoscemmo. Pensiamo tutti li altri de la passata terra vivino nel medesimo modo.

Essendo in questa dimorati tre giorni, surti a la costa, per la rarità de' porti deliberammo partire scorrendo sempre il lito(*i*) infra septemtrione et oriente, il dì solamente navigando, et la notte posando l'ancora.(*j*)

(*i*) *quale batezamo* ARCHADIA *per la belleza de li arbori.*

Ne l'Arcadia trovamo un home, el quale veneva al lito per vederce che gente eramo: quale stava sospeso et fugiasco. Riguardando noy non si lasciava venir adpresso. Era bello, nudo, con capelli in nodo avvolto, di colore olivastro.

Eravamo circa a XX in terra e lusingandolo se aproximò a due braza alquanto et ne mostrava un legno acceso come per presen-

64 *Rm.* nella Lombardia costumano.

65 *F.* il frutto di quelle beendo. *Rm.* avendo più volte veduto il frutto di quelle secco.

66 *F.* arbusculi.

tarci foco. E noi ce facemo foco di polvere col azalino e luy tutto tremò di paura et facemo scarcar uno sclopetto. Restò come attonito et orò predicando come un frate, ponendo el dito a celo et notando la nave e 'l mare pareva benedisse (?) noy altri.

(*j*) *corremo una costa molto verde de selve, ma senza porti, et con alcuni promontori ameni et fiumi picoli. Batezamo la* Costa di Lorenna *per el Cardinale: el primo* Promontorio Lanzone, *el* 2° Bonivetto, *el fiume più grande* Vandoma *et uno monticello, quale* manet mari, *di* S. Polo *per el Conte.*

Terra d' Angoulême, baia S. Margherita (*New-York*), fiume Vendôme (*Hudson*), l'isola della Regina Luisa (*isola Block?*)

In termine di leghe cento trovammo un sito molto ameno posto in fra duj piccolj colli[67] eminenti, in mezo de' quali correva al mare una grandissima riviera,[68] la quale drento a la foce era profonda e dal mare a la eminentia di quella, col crescimento de le acque, qualj trovammo piedi octo, saria passata ogni oneraria nave.[69] Per esser surti a la costa in buono abligo,[70] non volemmo sanza intelligentia da la focie aventurarci. Fumo col batello, entrando ne la detta riviera a la terra, quale trovammo molto popolata. La gente quasi conforme a l'altre, vestiti di penne di uccellj di varj colorj, venivano verso di noi allegramente, mettendo grandissimi gridj di admiratione, monstrandone dove col batello avessimo più sicuramente a posare. Entrammo in detta riviera drento a la terra circa a meza lega, dove vedemmo faceva uno bellissimo lago di circuito di leghe tre in circa. Per lo quale andavano discorrendo da l'una et l'altra parte al numero di XXX di loro barchette con infinite gente, che

67 *Rm.* in fra piccoli colli.
68 *Rm.* grandissima fiumara.
69 *Rm.* ogni gran nave charga.
70 *F.* obligo. *Rm.* in luogo ben coperto da venti.

passavano da l'una et l'altra terra per vederci. In uno istante, come avenir suole nel navicate, movendosi *uno* impeto *di* vento contrarjo dal mare fummo forzati tornarci a la nave lassando la detta terra con molto dispiacere per la comodità et vagheza di quella, pensando non fussi senza qualche facultà di prezo, mostrandosi[71] tutti e' colli di quella minerali.(*k*)

Levata l'ancora, navigando inverso Oriente, che così la terra tornava, discorsi leghe LXXX[72] sempre a vista di quella. Discoprimmo una isola in forma triangulare, lontana dal continente leghe diecj, di grandeza simile alla insula di Rhodi piena di colli, coperta d'alborj, molto popolata per e' continovi fuochi per tutto al lito intorno vedemmo facevano. Baptezammola in nome della Vostra clarissima genitrice(*l*) non surgendo a quella per la opposizione del tempo.[73]

(*k*) *chiamata* ANGOLEME *dal principato quale obtenesti in minor fortuna, e lo sino, quale fa questa terra,* SANTA MARGARITA *dal nome di tua sorella, quale vince le altre matrone di pudicicia e d'ingegno.*

(*l*) ALOYSIA.

"REFUGIO" IL BELLISSIMO PORTO (*Newport*) E SUOI I DUE RE

Pervenimmo a una altra terra distante de la insula leghe XV, dove trovamo uno bellissimo porto et prima che in quello entrassimo vedemmo circa di XX barchette di gente che venivano con varii gridi di maravigle intorno a la nave. Non aproximandosi a più di cinquanta passi fermavonsi guardando l'hedificio,[74] la nostra effigie et habiti; di poi tutti insieme spandevano uno alto grido, significando rallegrarsi. Assicuratili alquanto imitando loro gesti, s'aproximarono tanto che gittamo loro alcuni sonagli et specchi et molte fantasie, le quali prese, con riso riguardandole, sicuramente ne la nave entrorono. Erano intra quelli, duoi Re, di

71 *Rm.* qualche ricchezza mostrandosi.
72 *Rm.* e così leghe 50.
73 *Rm.* per la contrarietà del tempo.
74 *Rm.* l'artificio.

tanta bella statura et forma quanto narrare sia possibile. El primo di anni XXXX[75] incirca, l'altro *giovane* di anni XXIIIJ, l'abito de' quali tale era. El più vecchio sopra il corpo nudo haveva una pelle di cervio lavorata artificiosamente a la damaschina con varj richamj; la testa nuda, e' capelli adrieto avolti con varie legature, al collo una catena larga ornata di molte pietre di diversi colori. El giovane quasi ne la medesima forma *era.* Questa è la più bella gente et la più gentile di costumi che habbiamo trovata in questa navigatione, Excedano a noi di grandeza; sono di colore bronzino,[76] alcunj pendano più in biancheza, altri in colore flavo; el viso profilato, e' capelli lunghi et neri, ne li quali pongono grandissimo studio in adornargli; li occhi neri et prompti, l'aria dolcie et suave imitando molto l'antico. De l'altre parti del corpo non dirò[77] a V. M^tà^ tenendo tutte le proportionj s'appartiene a ogni homo bene composto.[78] Le donne loro sono della medesima formosità et belleza;[79] molto gratiose, di venusta aria et grato aspetto, di costumj et continenza *secondo l'uso muliebre tanta quanta a humana creatura s'appartiene; vanno* nude con solo una pella di cervio ricamata come li huomini,[80] et alcune a le braccia portano pelli di lupi cervieri molto ricche, il capo *nudo* con varii ornamenti di treccie, composti de' medesimi capelli, che pendano da l'uno et l'altro lato del petto. Alcune hanno altre acconciature come le donne de Egypto et di Syria[81] usano, et queste sono quelle che excedano a la età et giunte in sponsalitio. Tengono a li orecchi varie fantasie pendenti come li orientalj costumano, così huomini come donne, a qualj vedemmo molte lamjne di rame lavorato da quelli tenute in prezo più che l'oro. Il quale per il colore non stimano; imperchè fra tutti da loro il più vile è tenuto,[82] l'azurro et rosso sopra ogni altro exaltando. Quello che da noi gli era donato

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75 *Rm.* d'anni 20.
76 *F.* di colore bianchissimo.
77 *F.* non dico.
78 *F.* a uno bene composto.
79 *F.* forma et bellezza. *Rm.* conformità e bellezza.
80 *Rm.* nude fuor che le parte vergognose le quali cuoprono.
81 *F.* Soria.
82 *F.* per il più vile è tenuto per il giallo colore che abborrono.

che più tenessino in prezo, erano sonagli, christallini azzurrj et altre fantasie da mettere a li orecchi et al collo. Non pregiavono drappi di seta e di oro nè *manco* d'altro genere,[83] nè si curavono di quelli havere; simile di metallj come acciaio et ferro, perchè più volte, monstrandoli dele nostre arme non ne piglavono admiratione, nè di quelle demandavono, solo l'artificio riguardando. De li specchi il simile facevano: subito quelli riguardando, ridendo rinuntiavono. Sono molto liberalj, chè tutto quello hanno donano. Facemmo con loro grande amistà, et un giorno davanti entrassimo con la nave nel porto, stando per li tempi aversi una lega in mare surti, venivano con numero *grande* di loro barchette a la nave, pintati et conci[84] il viso con vari colori, monstrandoci *era* segno d'allegreza, portandone de le loro vivande, facendoci segno dove per salvatione de la nave, nel porto havessimo a surgere, di continuo accompagnandone per insino in quello posamo l'ancora.

QUINDICI GIORNI TRA GL'INDIGENI DEL "REFUGIO"

Nel quale[85] riposamo giorni XV, restaurandone di molte oportunità; dove ogni giorno veniva gente a vederne a la nave, menando le loro donne. De le quali sono molto curiosi,[86] imperochè entrando loro in quella, dimorando lungo spatio, faceano le loro donne aspettare ne le barchette, e con quanti preghi li facessimo offerendoli donare varie cose, non fu possibile che volessino lasciare quelle in nave entrare. Et molte volte venendo uno de li duoi Re con la Regina et molti gentil huomini per suo piacere a vederne, in prima si fermava sempre a una terra distante da noi dugento passi mandando una barchetta avisarne della sua venuta, dicendo volere venire a vedere la nave: questo facendo in spetia di sicuranza.[87] Et come da noi haveano la risposta, subito venivano, et stati alquanto a riguardare, sentendo il noioso clamore della turba marictima,[88] mandava la Reina[89] con le sue dami-

[83] *F.* genere *di drappi.*
[84] *F.* puntati et acconci. *Rm.*, tutti dipinti.
[85] *F.* pel quale.
[86] *F. e Rm.* gelosi.
[87] *F.* sicurtà, *Rm.* segno di sicurezza.
[88] *Rm.* sentendo li gridi et strepiti delli marinari.
[89] *Rm.* madama la Reina * * * Restò.

gelle in una barchetta molto leggiera a riposare a una isoletta distante da noi un quarto di legha: restando lui grandissimo spatio ragionando per segni et gesti, di varie fantasie, riguardando tutte le substantie de la nave,[90] domandando in particulare la proprietà di quelle, imitando nostri habiti,[91] gustando de' nostri cibi; di poi benignamente da noi si partiva. Et alcuna volta dui o tre giorni stando la nostra gente a una isoletta vicina a la nave per varie necessità come è costume dei marinari, veniva con secte in octo de' suoi gentilhuomini, guardando nostre operationi, domandandone più volte se volevamo quivi restare per lungo tempo, offerendone ogni sua facultà. Di poi tirando con l'arco correndo faceva con li suoi gentil huominj varij giuochi per darci piacere.

Fumo più volte infra terra cinque in sei leghe, quale trovamo tanta amena quanto narrare sia possibile, acta ad ogni genere di cultura, frumento, vino, olio. Imperochè in quella sono campagne late[92] XXV in XXX leghe, aperte et nude d'ognj impedimento d'arbori, di tanta fertilità che qualsivoglia seme in quelle produrebbe optimo frutto. Entrando di poi ne le selve tutte ad ogni numeroso exercito in qual modo sia sono penetrabile, delle quali li alberi sono quercie, cipressi et altri, incogniti nella *nostra* Europa. Trovammo pomi luculliani(*m*)[93] prune et avellane, et molto genere di fructe da le nostre differenti. Animali vi sono grandissimo numero, cervi, daini, lupi cervieri et d'altre spetie, quali nel modo delli altri piglono con lacci et archi che sono loro principale arme. Le freccie di quelli con molta pulchritudine lavorati, ponendo in nella extremità per ferro: smeriglo, diaspro, duro marmoro et altre taglienti pietre. Delle quali si servono per ferro in tagliare arborj, fabricare loro barchette d'uno solo fusto di legnio, con mirabile artificio concavo, in le qualj comodamente andranno da quactordici in XV huomini,[94] el remo corto,

90 *Rm.* tutti gli apparati e fornimenti della nave.
91 *Rm.* prendeva ancho piacere di vedere i nostri abiti.
92 *F.* larghe.
93 *Rm.* pomi appii.
94 *F.* e *Rm.* 10 e 12 uomini.

in nella extremità largo, operando quello solo con forza di braccia in pelago sanza alcuno pericolo con tanta velocità quanta a loro piace.

(*m*) sive *cerase.*

Il paese del "Refugio." Il pianto siciliano

Extendendosi,[95] vedemmo loro habitationi in forma circulare di XIIIJ in XV passi[96] di ambito, fabricate di semicirculj di legno, separate l'una da l'altra sanza ordine di architettura, coperte con tele di paglia sottilmente lavorate, che da pioggia et vento si difendano. Non è dubio che se havessino la perfectione de l'artifici[97] noi habbiamo, conducessino magni edificij,[98] imperochè tutto el lito maricimo di varie pietre cerulee,[99] cristalline ed alabastro è pieno, et per tal causa è copioso di porti et riceptaculj di navi.[100] Permutano dette case[101] di uno in altro luogo secondo la opulentia del sito e 'l tempo in quelle dimorati. Levando[102] solo le tele in uno stante hanno altre habitationi fabricate. Dimora in ciascuna padre et famigla in grandissimo numero, chè in alcuna vedemmo XXV e XXX anime. El viver loro è come li altri: di legumi (quali producano con più ordini di cultura delli altri, observando ne le semenze l'influxo lunare, il nascimento de le Plyade[103] et molti modi da li antiqui dati), inoltre di venagione et pescie. Vivono molto tempo *et raro* in egritudine incorrano; se da[104] *vulnere* sono opressi sanza fiemito[105] col fuoco da loro medesimi si sanano; il fine loro essere di ultima vecchieza. Giudichiamo sono di loro proximi molti pietosi et caritativi, facendo ne le aversità gran lamenti, ne la miseria ricordando tutte le loro felicità. E' parenti l'uno con

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95 *F.* extendendoci. *Rm. omette.*
96 *F.* e *Rm.* di 10 in 12 passi.
97 *Rm.* l'ordine del fabbricare e la perfezione.
98 *Rm.* grandi et superbi edifici.
99 *F.* vive pietre deuralaee. *Rm.* pietre vive traspasenti.
100 *F.* riceptaculo di animali. *Rm.* di navili.
101 *F.* permutano dette cose. *Rm.* mutano le dette case.
102 *F.* esperientia del sitto et il tempo. In quello dimorati levano.
103 *F.* Ihade. *Rm.* alcune stelle.
104 *F. segna lacuna.*
105 *Rm.* da qualche infermità senza medico.

l'altro in fine di loro vita usano il pianto siciliano,[106] misto con canto per lungo tempo durando. Questo è quanto di loro possemmo conoscere.

Nel parallelo di Roma. La "Petra Viva"

Questa terra è situata nel pararello di Roma in gradi 40 e ⅔, [(107)] ma alquanto più fredda, per accidente et non per natura, come in altra parte narrerò a V. M^ta^, descrivendo al presente el sito di detto porto. *Discorre el lito di detta terra da occidente in oriente. La bocca del porto*(*n*) guarda verso l'Austro, angusta meza legha, di poi entrando in quella fra oriente e septemtrione si stende leghe XIJ, dove allargandosi causa uno amplo [108] seno di circuito di leghe XX in circa. Nel quale sono cinque isolette di molta fertilità et vagheza, piene d'alti e spatiosi alberj, fra quali ogni numerosa classe,[109] senza timore di tempesta o altro impedimento di fortuna, sicuramente[110] può quiescere. Tornando di poi verso Meridie a l'entrata del porto, da l'uno et l'altro lato sono amenissimi colli con molti rivi, che da la eminentia al mare scaturiscano chiare acque.

Nel mezo di detta boccha si truova uno scoglio di viva pietra da la natura prodotto, atto a fabricarvi qual si voglia machina o propugnaculo per custodia [111] di quello. (*o*)

(*n*) *quale per la belleza chiamamo* Refugio.

(*o*) *quale e per la natura del saxo e per la famiglia de una gentildona chiamiamo* La Petra Viva; *a cui dextro lato de detta bocca del porto è un promontorio quale diximo* Jovium promontorium.

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106 *Rm. omette* siciliano.
107 *F.* e *Rm.* parallelo di Roma in gradi 41 e ⅔.
108 *F.* amplissimo.
109 *F.* fra le quali isole ogni numero di classe. *Rm.* ogni grossa armata.
110 *F.* sicura.
111 *Rm.* fortezza per custodia.

Alle "Secche d'Armellino" e al "Prom. Pallavicino" (*Capo Cod.*)

Essendo d'ogni nostra necessità restaurati, il giorno sexto[112] di maggio partimmo dal detto porto continuando il lito, non perdendo mai vista de la terra. Navigammo leghe cento cinquanta(*p*) trovandola d'una medesima natura, et alquanto più alta con alcune montagne(*q*) che tutte si monstravono minerale. Non posammo a quella per la prosperità del tempo ne serviva in rigar la costa:[113] pensiamo sia all'altra(*r*) conforme. Correva el lito a l'oriente.

(*p*) *intra qual spatio trovamo syrti, che si extendevano dal continente in pelago leghe* 50. *Super quale non era se non* 3 *piedi d'acqua: per il che periculo grande a navicarci. Passamo con difficultà e le batezamo* Armellini.

(*q*) *con un eminente promontorio, qual chiamamo* Pallavisino.

(*r*) *gente.*

La "Terra di Mala Gente"

In spatio di leghe cinquanta, tenendo più al septemtrione, trovammo una terra alta piena di selve molto folte, de li quali li alborj erano abeti, prussi[114] et simili si generano in regionj fredde. Le gente tutte da l'altre disformj et quanto li passati erono di gesti gentili, questi erano di crudeza[115] et vitii *pieni,* tanto barbarj,[116] che mai possemmo con quanti segnalj li facessimo havere con loro conversatione alcuna. Vestano di pelle d'orso, lupi cervieri, [lupi] marini, et altri animali. El vivere, per quello possemmo conoscere andando più volte da loro habitationj, extimiamo sia di venatione, pesci ed alcuni fructi che sono di spetie di radicie, quali la terra per se medesima produce.

112 *Rm.* giorno quinto.
113 *Rm. omette* in rigar la costa.
114 *F.* e *Rm.* cupressi.
115 *F.* ruvidezza.
116 *F.* visi tanti barbari.

Non hanno legumi nè vedemmo segno alcuno di cultura, nè meno sarebbe la terra per la sterilità acta a produrre fructo o seme alcuno. Se da quelli alcuna volta permutando[117] volavamo de le loro cose, venivano al lito del mare sopra alcune pietre dove più frangeva et, stando noi nel batello, con una corda quello ne volevano dare ci mandavono, continuo gridando a la terra non ci aprossimassimo, donando[118] subito il cambio, a lo incontro non piglando se non coltelli, lami[119] da pescare et metallo tagliente. Nè stimavono gentileza alcuna, et quando non havevano[120] più che permutare, da loro partendo, li homini ne facevano tutti li acti di dispregio et verecundia[121] che può fare ogni brutta creatura.(*s*)[122] Fummo contro a loro volontà drento infra terra dua et tre leghe(*t*) XXV huominj *armati,* et quando scendevamo al lito ne tiravono con loro archi mettendo grandissimi gridi, di poi si fuggivano ne le selve. Non conoscemmo in questa terra facultà di momento alcuno, se non grandissime selve con alcunj colli possano avere qualche metallo: chè a molti vedemmo "paternostri" di rame a li orecchi.

(*s*) *come monstrar el cu.., e ridevano.*
(*t*) *sono in* 43⅔.

La Dalmazia del Mondo Novo. Il ritorno

Partimmo scorrendo la costa intra oriente et septentrione, quale trovamo più bella, aperta et nuda di selve, con alte montagne drento infra terra, diminuendo inverso el lito del mare. In leghe cinquanta discoprimmo XXXIJ isole,(*u*) tutte propinque al continente, picole et di grata prospectiva, alte, tenendo la versura[123] della terra, fra le quali si causava bellissimi porti et canalj, come nel Sino Adriatico ne la Illiride[124] et Dalmatia

117 *F.* rinuntiando.
118 *F.* domandando.
119 *F.* e *Rm.* hami.
120 *Rm.* avevamo.
121 F. inverecundia.
122 *Rm.* ogni inumana e discorte secreatura.
123 *F.* verzura. *Rm.* molte rivolture.
124 *Rm.* nel Golfo Adriatico nella Schiavonia.

fanno. Non havemmo con le genti conoscenza et stimiamo[125] *fussino* come le altre lasciate[126] di costumj et natura.

Navigando intra Subsulano et Aquilone in spatio di leghe CL *venimmo propinqui a la terra trovorono per il passa*[127] *e' Britannj, quale sta in gradi cinquanta* et havendo consumato tutte nostre substantie navali et vettovaglie, havendo discoperto leghe sectecento et più di nuova terra, fornendoci d'acqua et legne, deliberammo di tornar in francia.

(*u*) *fra le quale tre magiori dicemo* Le III Figlie di Navarra.

Gl'indigeni senza religione

Quanto a la fede tenghino questi popolj habbiamo trovato, per mancamento di lingua non possemmo conoscere, nè per segni o gesti alcunj. Considerammo tenissino fede o leggie alcuna, nè conoscessino una prima causa o motore,[128] nè venerassino cielo, stelle, sole o luna o altri pianeti, nè manco tenessino spetie di Idolatria, nè conoscemmo facessino sacrifitio o altre preci: nè ne le loro populationj hanno templi o chiese di orationi.

Stimiamo non tenghino fede alcuna et vivino in propria libertà,[129] et tutto dalla Ignoranza proceda: perchè sono molto facili a persuadere, et tutto quello *che a noi* christiani circa il culto divino vedevano fare, facevano, con quello stimolo et fervore che noi facciamo.

La longitudine percorsa. Il diario astronomico

Restami a narrare a V. M[tà] l'ordine di detta navigatione circa a la Cosmographia. Come di sopra dissi, partendo da li prefati scopuli che sono situati nel fine dell'occidente a li antiqui noto, et nel meridiano descripto per le Insule Fortunate, in altitudine di gradi XXXIJ da l'equatore nel nostro Emisperio, navicommo

125 *F.* stiano.
126 *Rm. omette* lasciate.
127 *Rm.* per il passato.
128 *F.* ne conoschono una per una causa et motore.
129 *F.* in questa libertà.

a lo occidente, per insino a la prima terra trovammo, leghe MCC che contengono miglia 4800, computando miglia quactro per legha secondo l'uso maricimo de' navalierj:[130] "geometricie" iusta la proportione tripla senza sesquiseptima[131] del diametro a la circumferentia, gradi $92\frac{54}{472}\frac{164}{733}$ [(132)] Con ciò sia che sendo la corda dell'arcbo del massimo circulo gradi $114\frac{6}{11}$, la corda del pararello di gradi 34 della prima terra da noi trovata, a la medesima proportione gradi $95\frac{233}{450}$ [(133)] essere si mostra l'ambito di tutto el circulo gradi $300\frac{713}{1575}$;[(134)] che dando per ogni grado come confermono la maggior parte di quelli hanno sperimentato rispondere in terra a la proportione del cielo, migla 62½, farieno migla $18759\frac{31}{126}$ [(135)] quali ripartite in 360 *parte,* veneria per ciascuna migla $52\frac{989}{9072}$ [(136)] Et tanto vale un grado di longitudine, nel detto pararello di gradi 34, sopra del quale per *linea* recta del merediano di dicti scopuli che stanno in gradi 32 habbiamo calculato la ragione. Imperochè[137] le dette leghe 1200 per retta linea in gradi 34 d'occidente in oriente abbiam trovato. Perverrja adunque per quella e' gradi $92\frac{54}{472}\frac{164}{733}$ [(138)] et tanto habbiamo navigato, più a lo occidente non fu cognito a li antichi nel dicto pararello di gradi 34.

Questa distantia a noj fu nota per la longitudine con varj strumenti navigando sanza eclipsi lunare o altro aspecto per il moto solare piglando sempre la elevatione a qual si voglia hora per la differenza faceva da l'uno et l'altro orizonte correndo la nave, "geometricie" ne era noto[139] lo intervallo de uno merediano a l'altro: come in uno libretto amplamente tutto ho notato insieme col crescimento del mare, in qual si voglia clima a ogni tempo et ora, el quale non inutile existimo habbia ad essere a navicanti.

Spero per la theorica migliore conferirlo con V^ra^. M^tà^.

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130 *F.* navileri.
131 *F.* tripla sevi settima.
132 *F.* gradi $92\frac{54}{472}\frac{164}{733}$.
133 *F.* gradi $95\frac{233}{450}$.
134 *F.* gradi $300\frac{713}{1575}$.
135 *F.* miglia $18{,}579\frac{31}{126}$.
136 *F.* miglia $52\frac{989}{9072}$.
137 *F.* la ragione in questo che.
138 *F.* gradi $92\frac{54}{472}\frac{164}{733}$.
139 *F.* nè era noto.

Lo scopo del viaggio

Mia intenzione era di pervenire in questa navigatione al Cataio *et* a lo extremo oriente de l'Asia, non pensando trovare[140] tale impedimento di nuova terra, quale ho trovata; et se per qualche ragione pensavo quella trovare, non sanza qualche freto[141] da penetrare a lo Oceano Orientale esser existimavo. Et questa opinione di tutti li antichi è stata, credendo certamente el nostro Oceano *Occidentale con* l'Orientale de India uno essere senza interposizione di terra. Questo afferma Aristotele argumentando per varje similitudini, la quale opinione è molto contraria a moderni et alla experienza falsa.[142] Imperochè la terra è stata trovata da quelli *a li* antichi incognita, un altro mondo, rispetto di quello a loro fu noto, manifestamente essere si mostra et maggiore[143] de la nostra Europa de l'Africa et quasi de l'Asia, se rectamente speculiamo la grandezza di quella; come sotto brevità ne farò un poco discorso a V. M^ta^.

Le nuove terre formano un grande continente

Ultra l'equatore, distante dal meridiano de le Isole Fortunate[144] verso l'occidente gradi $20\frac{32062}{47281}$,[145] l'Hispani, (*v*) verso l'Austro gradi 54 hanno navicato, dove hanno trovato terra sanza fine. Tornando di poi al septemtrione iusta detta linea meredionale correndo il lito per insino in octo gradi[146] [*segno di omissione*] $89\frac{2970}{46781}$[147] hanno navigato, quali giunti con e' gradi $20\frac{32060}{46781}$ fanno gradi $110\frac{44830}{46783}$. Et tanto hanno navigato dal detto merediano de le Isole Fortunate più a lo occidente nel pararello di gradi 21 de la altitudine.

---

140 *F.* pensando non trovare.
141 *F.* freso.
142 *F.* et la experientia falsa.
143 *F.* et di maggiore grandeza.
144 *F.* dalle Insule Fortunate.
145 *F.* gradi $20\frac{32060}{47281}$.
146 *F.* colma l'omissione di R. . . . *propinqui allo Equatore più allo occidente, partecipando più al settentrione giusta la detta linea meridionale, continuando el lito per fino in gradi* 21, *non trovando termine, gradi* . . .
147 *F.* gradi $89\frac{29702}{46782}$.

Questa distantia da noi non è stata experimentata per non havere facta detta navigatione; potria variare pocho più o manco. Habbiamo quella calculata "geometricie" per la notitia di molti naveleri *periti* l'hanno frequentata, quali affermano essere leghe 1600 giudicando per albitrjo el discorso de la nave secondo la qualità del vento per la continova navicatione.

Spero in breve ne haremo (*w*) optima certitudine.(*x*)

Da l'altra parte noi in questa navicatione facta per ordine di V. M^tà^ oltre a gradi 92 *etc.* dal detta merediano verso l'occidente da la prima terra trovammo in gradi 34, (*y*) navicammo leghe 300 intra oriente et septemtrione et leghe 400 quasi a l'oriente continovo al lito[148] de la terra pervenendo in gradi 54,[149] lasciando la terra che più tempo fa trovorono e' Lusitani, (*z*) quale seguirono più al septemtrione per insino al circulo artico lasciando il fine incognito. Giunta adonque la latitudine septemtrionale con la meredionale cioè gradi 54 con gradi 66 fanno gradi 120, che tanto non tiene di latitudine l'Affrica, con l'Europa: perchè giugnendo lo stremo de la Europa, che sono e' limiti di Norvegha[150] che stanno in gradi 71, con l'estrema de l'Africa, che è il Promontorjo[151] di Buona Speranza in gradi 35, farieno soli gradi 106 et se il sito terrestre[152] di detta terra in parte corrisponde al lito maritimo non è dubio di grandeza a la Asia exceda.

(*v*) *cioè Magalane.*
(*w*) *noy altri.*
(*x*) *col beneficio de li posti.*
(*y*) *terra propinqua a Temistitan.*
(*z*) *cioé Bacalaia cosci detta da un pesce.*

148 *F.* continuo el lito.
149 *F.* gradi 50.
150 *F.* Norveggia.
151 *F.* Promontorio del Capo.
152 *F.* lo equestre.

Proporzione tra terra ed acque nel Globo

In tal forma troviamo el globo de la Terra molto maggiore non hanno tenuto li Antichi et repugnante a Mathematici[153] ch'hanno *voluto* quella rispetto a l'acqua sia minima, il che per experientia l'opposito veggiamo.

Et quanto a la Area[154] corporale di spatio; non meno la terra che l'acqua possedere giudichiamo, come a la presentia miglore spero per più ragioni viste et sperimentate mostrare[155] a V. M^{tà}.

Il Nuovo Mondo è isolato

Tutta questa terra o Nuovo Mondo che di sopra abbiamo narrato contiene insieme, non giugnendo a la Asia nè alla Africa[156] (il che sappiamo per certeza), potrà giugnere a la Europa con la Norvenga[157] et Rossia; che saria falso secondo li antichi, quali dal promontorio de' Cimbri quasi tutto el septemtrione[158] dicano essere stato navigato a lo Oriente, circuendo per insino al Mar Caspio[159] el medesimo affermano. Resterebbe adunque interclusa da duj marj[160] da lo Orientale et Occidentale et quella Il[161] ne chiude[162] l'uno et l'altro, perchè oltre de' gradi 54 de lo equinoctiale verso l'Austro si stende all'Oriente per lungo spatio et dal septemtrione[163] passando e' gradi 66 segue tornando verso l'oriente giugnendo per insino a gradi 70.

Spero con lo aiuto di V. M^{tà} ne haremo[164] meglore certitudine, la quale idio omnipotente prosperi in diuturna fama, a causa veggiamo optimo fine di questa nostra cosmographia et che si

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153 *F.* a repugnatia matematici.
154 *F.* allo aere.
155 *F.* alla presentia meglio spero et con più ragione experimentare et monstrare.
156 *F.* congiugnendo alla Asia et Africha.
157 *F.* Norveggia.
158 *F.* el septentrionale.
159 *F.* circuendo circha il Mare Caspio. *C.* mar Cassino.
160 *F. sola* interclusa da due mari *situati.*
161 *F.* et quelle due.
162 *C.* ne guida.
163 *F.* septentrionale.
164 *F.* ne aremo in brieve.

adempia la sacra voce[165] de lo evangelio "*In omnem terram exivit sonus eorum etc.*"

Ne la nave DALPHINA[166] a dì VIIJ di Iuglio M. D. XXIIIJ.

Humilis servitor[167] JANUS VERAZANUS.[168]

A Leonardo Tedaldi o a Thomaso Sartini mercanti in Leone. Mandaretelo a Bonacorso Ruscellay.

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[165] *F.* sacra boce.
[166] *F.* ne la nave "Delfina" in Normandia, in porto di Diepa.
[167] *F.* humilissimo servitor.
[168] *C.* Iohanne Verazano.

APPENDIX B.

HENRY HUDSON

AND

THE DISCOVERY OF THE HUDSON RIVER

By Edward Hagaman Hall, L. H. M., L. H. D.

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PREFACE.

In 1909, on the occasion of the three hundredth anniversary of the third recorded voyage of Henry Hudson, in which voyage the navigator explored the river which bears his name, the writer of the following pages prepared for the Hudson-Fulton Celebration Commission a pamphlet of 74 pages entitled "Hudson and Fulton. A brief history of Henry Hudson and Robert Fulton with suggestions designed to aid the holding of general commemorative exercises and children's festivals during the Hudson-Fulton Celebration in 1909." In the researches made in Holland and America and in the extended study of original authorities, including the relations of the principal navigations of the sixteenth and early seventeenth centuries, upon which the portion of that brochure relating to Hudson and the Hudson river was based, the author gathered many details which were beyond the scope of that work. These details seem to be of sufficient interest to warrant the somewhat more extended treatment given to the same subject in the following pages.

Much has been written about Hudson by authors who have found it convenient to use secondary authorities and who, as a consequence, have perpetuated many errors — such, for instance, as Murphy's erroneous description of the Half Moon as a two-masted vessel, Murphy's claim that Hudson originated the idea of an open polar sea, and Fiske's statement that Hudson first recorded sun-spots. In the following pages, the author has endeavored to avoid asserting anything concerning Hudson without ample warrant, and has sought, either by grouping familiar facts in a new relation or by bringing to bear upon the subject unfamiliar testimony contemporaneous with Hudson's time, to place the historic voyage in a new setting and vivify it with a new interest.

In these modern times, when man has penetrated to the utmost corners of the earth, and when one can cross the ocean in less than five days surrounded by the luxury of a palace and with almost as little danger as he can make a journey on land, it is difficult to imagine the state of human knowledge three centuries ago, when vast seas and continents were unexplored and when the perils of the ocean were so great that the rituals of the ancient churches provided special prayers for those who went down to the sea in ships. It is one of the beneficent uses of great anniversaries, therefore, that we are stimulated by them to bring back in imagination the conditions of earlier generations, and learn to appreciate not only the bravery of Civilization's frontiersmen, but also our inestimable heritage from the past and our duty to those who shall come after us.

For permission to reprint verbatim certain paragraphs from the original copyrighted brochure entitled "Hudson and Fulton" we are indebted to the Hudson-Fulton Celebration Commission; and for the plans of the Half Moon we are under obligations to Rear-Admiral J. A. Röell of the Royal Netherlands Navy.

LAST VOYAGE OF HENRY HUDSON.

From painting by Hon. John Collier in the National Gallery of British Art (or Tate Gallery), London, Eng. It represents Hudson and companions abandoned by his mutinous crew in Hudson Bay, June 22, 1611. See page 253.

HENRY HUDSON AND THE DISCOVERY OF THE HUDSON RIVER.

CHAPTER I.

Geographical Knowledge in Hudson's Day.

Between September 2 and October 4, 1609, Henry Hudson, an English navigator sailing under Dutch auspices, explored the river which bears his name in what is now called the State of New York.

To realize the importance of that voyage, it is necessary to recall the incomplete state of geographical knowledge of America 300 years ago, and the extremely slight hold which European civilization had upon this continent at that time.

At the beginning of the seventeenth century, European acquaintance with North and South America, with exceptions to be noted hereafter, was confined almost exclusively to the sea shore. Between the advent of the Norsemen upon the New England coast in the year 1000 or earlier, and Sir Francis Drake's voyage to the Pacific in 1579, navigators of various nationalities had in a general way followed the continental borders from Baffinland down along Labrador, Nova Scotia, the Eastern United States, the countries bordering the Gulf of Mexico and Caribbean Sea and the eastern coast of South America, passed through the Straits of Magellan, and gone up the western side of South America and North America as far as Oregon. But while that was true, European knowledge of the Americans was extremely rudimentary for several reasons:

First, in most of these voyages the coast was touched only at intervals and known only in its most prominent features. Details had been examined very little.

In the next place, precise observations of latitude and longitude and precise surveys, which are the basis of accurate map-making, were impossible at that time on account of the crude instruments

used in navigation and the correspondingly undeveloped state of marine science.

In the third place, it was an age when, on account of national rivalries, explorers did not freely disclose their discoveries to the world at large so that there was difficulty in collating, comparing, and correcting the observations of different navigators.

For these reasons, the maps of the coasts of the New World prior to Hudson's time were incomplete, incorrect, and absurdly distorted.

Within these curiously disproportioned continental outlines, the country was almost unknown. The Saint Lawrence river had been penetrated as far as Montreal and Quebec had been settled in 1608. At Port Royal, Nova Scotia, the French had planned a settlement but it was abandoned in 1607. One or two of the larger rivers of Maine had been entered for a short distance and an English settlement had been made at the mouth of the Kennebec but it was abandoned in 1608. The mouth of the Hudson river had been entered but there was no general knowledge concerning the river itself. The James river, in Virginia, had been explored as far as the falls at Richmond, and the first permanent English-speaking settlement in America had been made at Jamestown, Virginia, in 1607. In 1608 Captain John Smith explored the Chesapeake bay, and had sent some of his preliminary maps and descriptions to England, but the really remarkable map which was drawn from his explorations was not published until 1612. From Virginia southward another dreary stretch of uncivilized coast reached to Florida. There the St. John's river had been entered and a colony attempted by the French, but the colony had been wiped out by the Spaniards, who founded St. Augustine in 1564. Ponce de Leon who landed in Florida and De Soto who discovered the Lower Mississippi contributed little to accurate geographical knowledge. Information about the interior of the Americas was confined almost entirely to Mexico and Peru, from which the Spaniards had extracted, under a system of slavery worse than Egyptian, the gold and silver which had made them in the 16th century the most powerful civilized nation in the world.

From Mexico as a base, the Spaniards had explored the southwestern United States as far north as Kansas and had made some interesting discoveries, such as those of the Grand Canyon of the Colorado river, the Pueblos of the southwestern Indians, etc., but they had planted within the present limits of the United States only one settlement, other than St. Augustine before mentioned, namely Santa Fe, N. M.

That, in brief, was what the Old World knew geographically about the New. It will thus be seen how little was known in Hudson's day about North America north of Mexico; and with only four permanent settlements north of the Rio Grande, namely at Quebec, Jamestown, St. Augustine and Santa Fe,[1] there were few bases on the continent from which further explorations could be made. Dependence, therefore, was still placed on European navigators for additional information. Under such conditions, it is apparent that the thorough exploration of a great river like the Hudson, and the revelation of its commercial possibilities to what was then the most enterprising commercial people of Europe, was a very valuable addition to the Old World's knowledge of the New.

In order that there may be no misconception as to the nature of the honor accorded to Hudson, it should be said in passing that it is not claimed that he was the first to learn of the existence of the river which bears his name. The word "discover" does not necessarily mean to see a thing first. Its primary meaning is to uncover or to lay open to view; hence, to show, to exhibit, or to make known. Columbus was not the first person to discover America, for the Norsemen had discovered this continent 500 years before Columbus' famous voyage; and yet we justly call Columbus the discoverer because he made his knowledge useful to mankind.

So it was with Hudson. The sharp re-entrant angle in the Atlantic coast which marks the outlet of the Hudson river had not escaped the notice of earlier navigators, and the bend in the shore line and the river itself were indicated on maps made before

[1] At Quebec there were only eight survivors in 1609. At Jamestown there were about 200.

Hudson's day. But while Verrazzano had undoubtedly visited our harbor in 1524, and while Gomez had possibly visited it in 1525, there is absolutely no evidence that they explored the river, and there is not an authentic record in existence that gives the name of any explorer who ascended the Hudson river more than four or five miles before Hudson himself. The most conclusive evidence that Hudson was the first European to ascend the river is to be found in the fact that he did ascend the river. Hudson, who was in a position to avail himself of every bit of geographical knowledge possessed by those two distinguished groups of geographers who gathered around Hakluyt in London and Plancius in Amsterdam, entered the river in the belief that it was a strait. If anybody else had explored it the contrary would have been known to be the fact and Hudson would not have tried to reach China by this route. Hudson was first to give to the world an authentic record of careful exploration of the river to the head of navigation and in the true sense of the word to "discover" to mankind the extent and resources of this great stream. The association of his name with the river is perhaps one of the strongest evidences of the common consent with which he was recognized in the 17th century as the navigator to whom the nations were chiefly indebted for their knowledge of the stream. We are well justified, therefore, in calling Hudson the discoverer of the river and in according him honor as such.

CHAPTER II.

Verrazzano — Sea of Verrazzano — The "New Map."

The consideration of two or three details of the explorations and cartography which we have so briefly summarized in the preceding pages will help us to understand more fully why Hudson, after his ineffectual attempt to find a passage to the orient by Nova Zembla in 1609, turned westward and sought a way through America.

In 1524, Giovanni Verrazzano, an Italian sailing under French auspices, explored our coast from about 34° to abont 50°

north latitude. This voyage interests us for two reasons. The first is that in its course, Verrazzano entered New York harbor. He was the first European, so far as we have authentic records, to visit these waters. The second reason is that as the result of his voyage, a singular geographical misconception called the "Sea of Verrazzano" was impressed upon American cartography and could not have been without its effect on Hudson.

Verrazzano's account of New York harbor is brief.[2] Translated from the original Italian, it reads as follows:

"At the end of a hundred leagues we found a very agreeable situation located within two small prominent hills, in the midst of which flowed to the sea a very great river, which was deep within the mouth; and from the sea to the hills of that [place] with the rising of the tides, which we found eight feet, any laden ship might have passed. On account of being anchored off the coast in good shelter, we did not wish to adventure in without knowledge of the entrances. We were with the small boat, entering the said river to the land, which we found much populated. The people, almost like the others,[3] clothed with the feathers of birds of various colors, came toward us joyfully, uttering very great exclamations of admiration, showing us where we could land with the boat more safely. We entered said river, within the land, about half a league, where we saw it made a very beautiful lake with a circuit of about three leagues;[4] through which they [the Indians] went, going from one and another part to the number of XXX of their little barges, with innumerable people, who passed from one shore and the other in order to see us. In an instant, as is wont to happen in navigation, a gale of unfavorable wind blowing in from the sea, we were forced to return to the ship, leaving the said land with much regret because of its commodiousness and beauty, thinking it was not without some properties of value, all of its hills showing indications of minerals.

The anchor raised, sailing toward the east, as thus the land turned, having traveled LXXX leagues always in sight of it, we discovered an island triangular in form, distant ten leagues from the continent, in size like the island of Rhodes, full of hills,

[2] For a complete description of Verrazzano's voyage, see "Giovanni da Verrazzano and His Discoveries in North America" on pages 135–226 preceding.

[3] Which they had seen further south.

[4] Through the Narrows into the upper harbor.

covered with trees, much populated [judging] by the continuous fires along all the surrounding shore which we saw they made. We baptized it in the name of your most illustrious mother;[5]

Soon after Giovanni Verrazzano's voyage, his brother Hieronimo made a map which represented North America constricted to a very narrow isthmus at a point which may be roughly estimated to be anywhere between Virginia and New England. West of this isthmus was what was later called the Sea of Verrazzano.[6] The belief in the proximity of this western sea to the Atlantic was very persistent. It appears reflected in the beautiful Ulpius Globe (1542) at the New York Historical Society, in the Lok Map (1582) and in the writings of Capt. John Smith up to within a few months before Hudson's voyage of 1609.

Van Meteren, in his "Historie der Nederlanden" (1614) says that the idea of going to the coast of America in latitude 40° had been suggested to Hudson "by some letters and maps which his friend Captain Smith had sent him from Virginia and by which he informed him that there was a sea leading into the western ocean by the north of the southern English colony."[7] We do not know what Smith said in his letters to Hudson or what maps he sent, but what Smith believed can be inferred from his "True Relation," sent from Virginia by the hand of Captain Nelson June 2, 1608, and which was entered at Stationer's Hall, August 13, 1608, for publication. In this Relation, Smith tells of a conversation which he had at Werowocomoco with Powhatan, in which the native King asked him why he had gone so far up the James river. In order that Smith might have a pretext to "talke of the Backe Sea," he said that "on the other side of the Maine, where was salt water," his father had a child slain and he desired to revenge this death. Then

5 The mother of Francis I was Louise de Savoie. The Island of Louise is believed to be Block Island.

6 The mythical Sea of Verrazzano may possibly have been the result of the inferences of the European explorers from the efforts of the aborigines to describe by signs the Great Lakes.

7 The two English colonies overlapped, one extending from 34° to 41°, the other from 38° to 45° north latitude.

Powhatan described to Smith the countries beyond the falls (at Richmond) confirming what other Indians had told him about a sea beyond where the water dashed amongst the rocks in a storm. "Hee described also, upon the same Sea, a mighty Nation called Pocoughtronack, a fierce Nation that did eate men . . . Beyond them he described people with short Coates and Sleeves to the Elbows that passed that way in Shippes like ours."

Alexander Brown, in his "Genesis of the United States," expresses the opinion that copies of this Relation and of a map which accompanied it were taken to Holland by Hudson and are the ones referred to by Van Meteren. The map which accompanied the Relation, however, could have been of little use, if any, to Hudson, as it delineated only rivers in Virginia. Van Meteren must have referred to other maps.[8]

There was in existence, however, at the time of Hudson's voyage, a remarkable map which we have strong reason to believe had an influence in drawing him to America in 1609. Van Meteren says that when Hudson was baffled in the direction of Nova Zembla, he laid before his crew two propositions. One, based on Captain Smith's suggestions above alluded to, was to seek a passage in latitude 40°. "The other proposition was to direct their search to Davis' Straits." This shows that Hudson had carefully studied Davis' voyages. Now, an account of Davis' voyages was published in 1600, and it was accompanied by a very remarkable map, prepared by the collaboration of Molineaux, Hakluyt, and Wright,— the latter one of the most advanced men in the science of map-making in his day. The map, called at the time "the new map," is now generally known as the "Molineaux map." It shows the Atlantic coast from Cape Fear to Belle Isle. This map not only delineated Davis' explorations to the northward, but between 40° and 45°, it also represented a strait running up to the northwestward and connecting with what appears

[8] This idea of the Sea of Verrazzano persisted even after Hudson was dead. Hessel Gerritz, in 1612, cites in favor of the existence of a northwest passage "the testimony of the Virginians and Floridians who confidently affirm that to the northwest of their country is a large sea, saying that they have seen vessels there like those of the English."

to be the St. Lawrence river. The latter, in turn, connected on the northwest with bodies of water the bounds of which were unknown. The strait, above referred to, is the first geographical feature on the map west of the Island of Claudia (Block Island). It is marked "R. de Guamas."[9] This map presented to Hudson two ways by which to reach the western sea — one by Davis' Straits and one by the Rio de Guamas. The considerations which led him and his crew to choose the latter when, in May, 1609, they decided to try a western route, were probably these: Davis had tried the Davis Strait route three times and failed. On the other hand, the New York route, as we may call it for convenience, had not been attempted. The region between Cape Cod and the Delaware bay was practically terra incognita et mare incognitum, for most of the mariners in sailing along the coast theretofore had either explored between Cape Cod and the north and between Virginia and the south, or, if they had gone from one section to the other, had skipped diagonally across the hypothenuse, leaving the other two sides of the triangle unexplored. We can see to-day, from the absurdities of the "new map" in Davis' book that the land in the region of New York had not been explored in detail, and we know from Juet's Journal of Hudson's Voyage of 1609 that the adjacent triangle of the ocean was regarded as "an unknown sea."[10] This region, therefore, offered to Hudson untested possibilities which, with the descriptions sent to him by Smith and probably obtained from the Indians, must have been very tempting. Furthermore, the passage by latitude 40°, if it should prove to be feasible, would avoid the rigors of climate and dangers of ice presented by the more northern route, and, passing through a more habitable region, would offer larger probabilities of subsistence. In view of these considerations, and with the "new map" before Hudson and his crew, one can readily understand why they voted in 1609 to try the Rio de Guamas passage and why Hudson thus came to the Hudson river.

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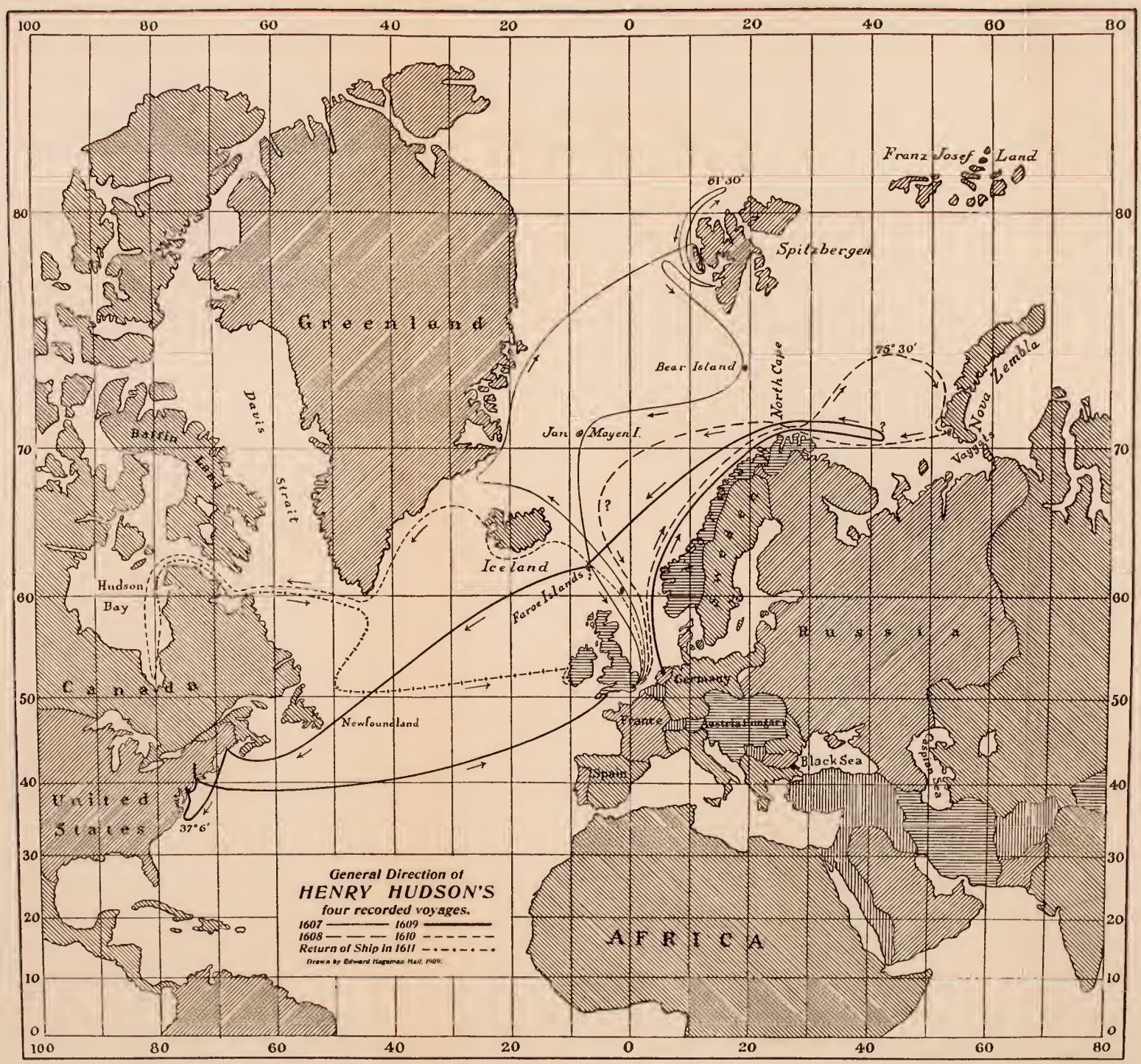
[9] See reference to River of Gomez on page 304 following.

[10] This testimony of Juet's Journal under date of August 9th to the prevalent ignorance concerning this portion of the Atlantic coast is very significant, and adds to the importance of Hudson's explorations.


Franz Josef Land
81°30'
Spitzbergen
Greenland
Bear Island
North Cape
75° 30'
Nova Zembla
Jan Mayen I.
Davis Strait
Baffin Land
Iceland
Faroe Islands
Hudson Bay
Russia
Canada
Newfoundland
Germany
France
Austria Hungary
Black Sea
Spain
Caspian Sea
United States
37°6'
AFRICA
General Direction of
HENRY HUDSON'S
four recorded voyages.
1607 —— 1609
1608 — — 1610
Return of Ship in 1611 -·-·-·-
Drawn by Edward Hagaman Hall, 1909.

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The "new map" above referred to possesses a literary as well as an historical interest. When it appeared in 1600, it aroused great popular interest. Everybody in London was talking about the "new map." This, we infer, from the fact that Shakespeare employed it in "Twelfth Night" in a humorous figure of speech which he undoubtedly expected everybody to appreciate. To understand Shakespeare's joke, it must be explained that this new map, like others of the period, had upon it about a dozen "wind-roses." A "wind-rose" is a point from which radiate lines running in the directions of the 32 points of the compass. As these lines, designed to aid the navigator, run as far as they can upon the map, the lines of the several wind-roses on the Molineaux map cross each other, producing, with the meridians and parallels of latitude, the appearance of a dozen great spider-webs. When this map came out Shakespeare was writing "Twelfth Night," which was read for the first time in the hall of the Middle Temple in London on February 2, 1601-2. In scene 2 of act 3, where Maria and Sir Toby are discussing Malvolio, Shakespeare causes Maria to remark that "yond' gull Malvolio" is in yellow stockings. "And cross-gartered?" inquires Sir Toby. "Most villainously," replies Maria; "like a pedant that keeps a school i' the church.—I have dogged him like his murderer: He does obey every point of the letter that I dropped to betray him. *He does smile his face into more lines than are in the new map with the augmentation of the Indies:* you have not seen such a thing as 'tis; I can hardly forbear hurling things at him."

The probability that Hudson had a copy of the Molineaux map with him on his voyage in 1609 is so strong that the builders of the new Half Moon in 1909 placed a copy of it in the cabin among the other equipments designed to represent those of the period.

CHAPTER III.

STATUS OF THE WORLD POWERS IN 1609.

In order to understand the conditions under which Hudson made his voyage in 1609, it is necessary to glance at the status

of the world powers which at that time was very different from their status to-day.

The three leading factors in the political and commercial world in 1609, so far as the discovery of the Hudson was concerned, were Spain, England, and the Netherlands. Portugal had made important discoveries in the past and had a valuable commerce, but in 1609 she was an appendage of Spain and can be disregarded. France had for years been engaged in complicated political intrigues, trying to play off Spain, England, and the Netherlands against each other for her own advantage, and, with an exception to be noted hereafter, she also can be disregarded in this connection.

Spain had but lately passed the zenith of her greatness. For a long time prior to 1588 she had been the greatest political, military, and naval power on the face of the earth, her possessions in the Americas, Europe, Africa, and Asia constituting the first empire upon which it could truly be said the sun never set. It is almost impossible today to realize the tremendous strength of Spain in the 16th century and even well into the 17th.

For forty years, prior to 1609, every resource which Spain's wealth and influence could command had been employed in an effort to crush and subjugate the Netherlanders, but without success, and in 1609 a twelve years' truce had been agreed upon. Thus, while there was nominally peace between the two countries, there was an intense hatred on the part of the Netherlanders for their hereditary enemies, which was one of the stimulating causes for Hudson's voyage, as we shall see later.

Spain had also recently been at war with England, so that the English and Dutch peoples had much to draw them together in common sympathy against the Spaniards. In 1588, Spain had started out with her so-called Invincible Armada to invade England, but the English (aided by the Dutch who detained Spanish forces in the Netherlands) destroyed the Spanish fleet and thus effectually broke the Spanish sea-power. English merchants, and the English government to a smaller extent, had reciprocated the help of the Netherlanders by sending them money to aid them in

their war with Spain, so that although, in 1609, Spain and England were apparently on friendly terms, there was no love lost between them.

England, Hudson's native country, had just passed through one of the most glorious periods of her history. During Queen Elizabeth's reign, the English sea-kings had won those great naval victories which laid the foundation of England's maritime greatness; manufacture and commerce had been stimulated; exploration had been encouraged; genius had been inspired; and Shakespeare and Spenser had shone in the literary world. The spirit of discovery and commercial enterprise aroused in Elizabeth's reign did not abate in 1603 when James I ascended the throne, and had an important influence on Hudson's career. In 1566, Parliament had incorporated "The Fellowship of English Merchants for the Discovery of New Trades," called for the sake of brevity the Muscovy Company, or Russia Company. Their trade was primarily with Russia. Christopher Hudson — possibly a relative of Henry Hudson — was one of the promoters of the company. The formation of the Muscovy Company was followed by the organization of other similar corporations — the Turkey Company in 1581, the Morocco Company in 1585, the Guinea Company in 1588, and others. But the great commercial prize for which the nations were contending was the rich trade with the East Indies, and in 1600, the English East India Company was formed for oriental commerce.

In every direction in which the English carried their sea traffic they encountered the keenest competition from the Dutch, for however friendly the two peoples were politically, they were jealous rivals commercially. So greatly did the Dutch encroach upon the English trade with Russia in particular, that just prior to Hudson's voyage in 1609, we find the English Muscovy Company and the English East India Company co-operating in an effort to find a passage to the treasures of the orient either around the north of Europe and Asia or around or through North America. It is here that we have the keynote to all four of Hudson's voyages.

Hudson's first recorded voyage was contemporaneous with two other important English events affecting American history. One was the planting of the first permanent English-speaking colony in the New World at Jamestown in 1607; the other was the flight of the Puritans from England to Holland. Both were related to the history of the Hudson river, for Captain John Smith sent from Virginia to Henry Hudson certain information which led Hudson to explore the Hudson river; and the other led eventually to the emigration from Holland of the Pilgrims, who started for the Hudson river but actually landed at Plymouth. (See footnote on page 307.

Turning now to the people under whose auspices the Hudson river was explored and New York was first settled: The Netherlands had been at war with Spain for forty years, and in 1609 had paused to catch breath in preparation for forty years more of struggle. The resistance of the Netherlands to the domination of Spain constitutes one of the most extraordinary and thrilling chapters in human history. The Dutch were lovers of law and liberty, and their war for independence was wonderfully like our own. Phillip II had deprived them of the popular suffrage which they had enjoyed by ancient charters; he forced foreign governors upon them; he quartered Spanish soldiers among them; he slew thousands of them on account of their religion. Then there rose up among them a great man, like our Washington of later times, William the Silent, who sold all his valuables and consecrated himself to the cause of the people. Under his heroic leadership the little Netherlands revolted against powerful Spain in 1568 just as the American colonies revolted against England in 1775; in 1581 they adopted a Declaration of Independence somewhat like our Declaration of Independence in 1776; and they fought against tremendous odds until they established a Republic, just as the Americans did many years afterward. The heroism of the Dutch people, whether fighting in boats on the sea, or on skates on the ice, or behind their walls on land, has never been surpassed. In the sieges of Harlem and Leiden and other cities, men and women stood shoulder to shoulder for Dutch liberties. In these

terrible sieges, they had to contend not only with Spaniards but also with pestilence and starvation. After consuming their ordinary food they lived on dogs, cats and mice rather than surrender. Then they boiled old saddles, and the hides of oxen and horses. Then they devoured their boots and shoes; and then they ate the grass that grew between the stones of their streets. At Leiden, the Dutch cut the dikes and let in the ocean and the Spaniards fled lest they be swallowed up like Pharaoh and his army in the Red Sea.

In 1609, at the beginning of the twelve years' truce, the Dutch republic was as populous as England and more wealthy. It was the manufacturing and commercial center of Europe; and Amsterdam, from which Hudson sailed, was the leading port of the world.

The people of the Netherlands were not only industrious, but with their universities and schools they were learned and cultured. They loved education. When, after the siege of Leiden, William of Orange offered the people of the city, as a reward for their heroism, the choice between the gift of a university and a remission of taxes, they chose the university, and thus came into existence the University of Leiden, which has given so many great men to the world. The Dutch people were, and still are, artistic and inventive. Their art galleries rival any in Europe. They dispute with Germany the honor of first printing from movable type. They gave the telescope, the microscope, the pendulum clock, and many other great inventions to the world. They have aptly been called the "Yankees of Europe." Above all, they believed in liberty of conscience and religious toleration, and gave refuge to the oppressed of all Europe. Such was the character of the people who founded New Netherland, a part of which is now New York State, and although the old Dutch government and the old Dutch name have passed away, the influence of the Dutch character and institutions has been indelible.

As before stated, the Dutch were powerful competitors with England in water-borne commerce, and they had a stimulus to this which the English had not. The prolonged war with Spain

had cost the Netherlanders a prodigious expenditure of treasure as well as of blood, and they realized that they could not maintain a successful struggle against their powerful antagonist unless they could replenish their purses. In the East Indies they saw a prize the winning of which would accomplish a two-fold result, namely, it would increase their power to continue the fight with Spain indefinitely, while at the same time it would proportionately decrease the resources of the Spaniards. This led to the formation in 1602, of the powerful Dutch East India Company, one of the most extraordinary corporate monopolies in the history of that period; and this, in turn, led to the founding of the Dutch empire in the east. It was under the auspices of this company, formed primarily for the East India trade, that Hudson started on his voyage in 1609.

The Vereenigde Oost-Indische Compagnie, or the Dutch East India Company, which plays such an important part in the story of the exploration of the Hudson river, was a great combination of merchants of the Netherlands for the control of the trade to the East Indies. It was composed of six different branches in different parts of the country, each having its local Chamber of Directors and managing its own affairs. These were represented in a central governing body of seventeen members called the Council of Seventeen. The names of the Chambers, their holdings of the capital stock, and their representation in the Council of Seventeen were as follows:

Name of Chamber.	Proportions of Capital Stock.	Members in Council of 17.
Amsterdam	50%	8
Zeeland	25%	4
Delft	12½%	1
Rotterdam		1
Hoorn	12½%	1
Enkhuizen		1
Chosen by lot by all Chambers	.....	1
	100	17

The profits of this company were enormous. During the first two years they amounted to 37 per cent. on the capital stock and during the next two years to 75 per cent. Every ten years there was a general reckoning up and division of profits, which will explain the reference to the "ten years reckoning" in the contract with Hudson. (See page 257.)

Before our great navigator enters upon the scene, however, it is necessary to prepare the historical background by taking a glance at the genesis of one of the ideas which strongly possessed his mind, namely, that of an open polar sea.

CHAPTER IV.

ARCTIC EXPLORATION.

Early in the sixteenth century, as soon as Spain's extremely profitable trade with the East Indies became apparent, other nations diligently sought a way thither which should be shorter than the route around the Cape of Good Hope. In the speculations which followed upon this subject, the idea of an open polar sea was evolved. The recent discovery of the North Pole[11] gives especial interest to the origin of the theory of the open polar sea. H. C. Murphy, in his valuable but not infallible tract entitled "Henry Hudson in Holland," originally published in 1859, says: "Whatever future exploration may disclose on this subject, the idea of the open polar sea undoubtedly originated with Henry Hudson." This is an error. In 1527, Robert Thorne, while in Seville, wrote for Doctor Ley, Henry VIII's ambassador to Spain, a learned treatise on the discoveries and claims of the Spaniards and Portuguese and accompanied it with a chart by the aid of which he endeavored to demonstrate that the English could reach the East Indies by a shorter route across the North Pole than the Spaniards could by the route which they pursued. He said

[11] Almost simultaneously in 1909 announcements were made that Cook and Peary had discovered the North Pole. On September 1, 1909, it was announced that Cook had reached that goal on April 21, 1908. On September 6, 1909, it was announced that Peary had attained the Pole on April 6, 1909. In November the American Geographical Society declared the proofs of Peary's achievements to be satisfactory. Cook chose to submit his evidence to the University of Copenhagen, which, on December 21, 1909, decided that he had given no proof of having attained the Pole.

"Now then, if from the sayd New found lands the Sea be navigable, there is no doubt but sayling Northward and passing the Pole, descending to the Equinoctial line, we shall hit these islands; and it should be a much shorter way then either the Spaniards or the Portingals have".

He then proceeded to figure out the saving of distance by the polar route to be 2,000 leagues in favor of the English. He said that while it was the general opinion of cosmographers "that passing the seventh clime, the sea is all ice and the cold so much that none can suffer it," yet they also had once held a like opinion as to the uninhabitability of the equator on account of its heat; and as the latter had been disproved by experience, he was of the opinion that "the same should be found under the North if it were experimented."

This idea of an open polar sea led to numerous attempts by both English and Dutch navigators to find an Arctic passage. Among them may be mentioned the efforts of Willoughby and Chancellor (1553), Burrough (1556), Frobisher (1576, 1577, 1578), Davis (1585, 1586, 1587), Barentz (1594, 1595), Barentz, Heemskerck and Rijp (1596), and Weymouth (1602).

The results of these expeditions had been rather discouraging and interest in polar research showed a tendency to languish, when it received a stimulus as a secondary effect of the formation of the Dutch East India Company in 1602. Soon after the organization of that monopoly, the Dutch merchants who were excluded became very jealous of the "trust's" enormous profits, and began to devise means by which to circumvent the monopoly. The license of the company gave it the exclusive privilege of trading to the East Indies by the only two practicable routes, namely, around the Cape of Good Hope and through the Straits of Magellan. The rivals, therefore, saw the advantage of a northern route if one could be found, and approached the States-General with a view to obtaining a similar privilege in that direction. Who they were who made these approaches we do not know to a certainty, but we suspect that among them were Bal-

thazar de Moucheron, who had been obliged to give up his private trade to the East Indies on account of the formation of the East India Company; and Isaac LeMaire, whose East India trade was likewise absorbed by the company. Both DeMoucheron and LeMaire were invited to be directors in the company, but the former declined to act altogether, and the latter acted only for a year or two.

These approaches to the States-General, by whomever made, caused the company to consider whether itself should not make a northward trial for its own protection. Its action is recorded in the Register of Resolutions of the Council of Seventeen, under date of August 7, 1603, as follows:

"It is likewise for deliberation and resolution whether the voyage to the northward shall also again be taken in hand and negotiations be had with the Noble Lord States in regard to terms and privileges for that purpose, seeing that some private persons have already been in communication with said Lords; the more so, as this matter was postponed at the meeting of the Seventeen on the 27th of February last."

The conclusion of the Council is recorded in the margin as follows:

"The contents hereof are rejected as it is deemed not serviceable to the Company; and therefore if this navigation should be undertaken by any private persons, it ought to be prevented by all means".

However powerful the Dutch East India Company might be to keep Dutch rivals out of a field which the company itself did not care to enter, it could not control its English rivals across the channel, and in 1607 our great historical figure enters upon the stage in a daring voyage to the northward which attracted the attention of all Europe.

CHAPTER V.

Henry Hudson the Navigator.

All that we know of Henry Hudson is comprised within and between the years 1607 and 1611. He was a citizen of London

and was probably born in that city or immediate vicinity, but we do not know the exact place and date of his birth, nor do we know the exact place and date of his death. He first appears, on April 19, 1607, with eleven sea-faring companions, in the little church of Saint Ethleburga, in London, partaking of Holy Communion prior to embarkation on his first recorded voyage. He disappears from view in the mists of the great Hudson bay on June 22, 1611, set adrift with a few comrades by a mutinous crew to face the terrors of an unknown fate. We do not even know how he looked, for there is no authentic portrait of him, but fortunately we know his character by his works.

It is not to be imagined, however, that Hudson became the skillful and daring navigator that he was without hard schooling at sea, and we can give a fairly safe conjecture as to how he received his nautical training. Men of the name of Hudson were prominent and influential at that time and intimately identified with the Muscovy Company and the study of navigation. A Christopher Hudson of London, who was living at least as late as 1601 and was, therefore, contemporary with Henry Hudson, was a founder of the Muscovy Company under whose auspices Henry Hudson made his first voyage. In 1580 and 1581 there was in the employ of the Muscovy Company a Capt. Thomas Hudson who was a bold and skillful seaman. About the years 1581 and 1583 there was in London a Thomas Hudson — probably another Thomas — holding frequent conferences on marine affairs with famous navigators. This appears from the diary of Dr. John Dee, wherein Thomas Hudson is frequently mentioned prominently in the doctor's circle of acquaintances, which contained such men as Richard and Thomas Candish, Capt. John Davis, Sir Humphrey Gilbert, Sir John Gilbert, Adrian Gilbert, Richard Hakluyt, Sir George Peckham, and Sir Walter Raleigh. The presence of such navigators as Sir Humphrey Gilbert, Sir Walter Raleigh, and Capt. John Davis, and of the great annalist of voyages of Hakluyt, taken together with Dr. Dee's well-known interest in the Muscovy Company, gives to Thomas Hudson's membership in this circle a significance which cannot be ignored.

Among the entries in Dr. Dee's diary is one under date of January 23, 1583, in which he mentions a call from Secretary Walsingham with whom and Adrian Gilbert he discussed the subject of Northwest straits discovery. The next day Dr. Dee, Gilbert, Captain Davis, and Secretary Walsingham held a secret conference about the northwest passage at which "all charts and rutters were agreed upon in generall." And on March 6th Dr. Dee, Mr. Gilbert, Captain Davis, Alderman Barnes, Mr. Townson, Mr. Yong, and Mr. Hudson met and discussed the same voyage. In these conferences in which Thomas Hudson participated we find the inception of the famous voyages of John Davis, after whom Davis' strait is named, which had an important influence on the voyages of Henry Hudson in 1609 and 1610. Just what relation the various Hudsons of the time bore to our Henry Hudson we do not know, but we have here enough to show that men of the name of Hudson were intimately connected with navigation, and to suggest that probably Henry Hudson had had extensive training in the service of the English Muscovy Company before it intrusted one of its valuable ships to his command. The nearest ancestor who can be claimed for Henry Hudson with any strong probability of accuracy is an alderman of London named Henry Hudson who is thought to have been the navigator's grandfather.

That Henry Hudson had a wife and children we learn from his contract with the Dutch East India Company in 1609, and that one of his children was a young son appears probable from the fact that he had with him on his first, second, and fourth voyages a boy named John Hudson.

It is evident that Hudson belonged to a prominent family, stood high in the esteem of the Muscovy Company and had some standing at court, for on his last voyage he promised to have one Henry Green made a member of the Prince of Wales Guard, and, in 1612, vessels were sent out in search of him by the Prince of Wales' orders.

Hudson made four voyages of which we have records. The first, second, and fourth were under English auspices, and the third under Dutch. (See accompanying map.)

The first was made from April 23 to September 15, 1607, in the employment of the English Muscovy Company in an effort to reach China by passing between Greenland and Spitzbergen and across the polar region. His ship was named the "Hopewell." He reached a height of 81° 30′, a point nearer the pole than any other navigator up to that time, but baffled by the Arctic ice, he returned to the Thames about four and a half months after he started.

In 1608, from April 22d to August 26th, he made another voyage under the same auspices, probably in the same ship, and with the same object. At first he tried to pass between Spitzbergen and Nova Zembla and reached a height of 75° 30′, but was defeated by the ice. Then he returned southward and tried to find a way through the Nova Zembla group but failed. Thereupon he returned to England. On this trip, on June 15th, Hudson recorded that two of his crew saw a real mermaid, half woman and half fish.

In 1609 Hudson entered the service of the Dutch East India Company and made his third historic voyage on the Half Moon.

On April 17, 1610, Hudson started on his last voyage, having been fitted out by a new English company formed under the auspices of the Muscovy Company, the English East India Company, and a number of patrons among the nobility. His ship was named the Discoverer. His object was to search for a northwest route to the Pacific ocean through what is now called Hudson's strait. In the following August he entered Hudson's bay, spent the remainder of the season exploring it, and wintered in James bay in latitude 52°. During the winter Hudson's crew became violently disaffected with their master. They found fault with their limited allowance of provisions; they found fault with the strong discipline which he tried to enforce, and they found fault with his plans to continue his search for a westward passage when spring came. At length, on June 22, 1611, when in the eastern part of Hudson bay, near Cape Wolstenholme [12] the

[12] A note on the back of the map of Hudson's voyage, which appears in "Descriptio ac delineatio geographica detectionis Freti . . . ab M. Henrico Hudsono Anglo," published by Hessel Gerritz in 1612, says the crew revolted in 63°.

crew broke out in open mutiny. By force they put Henry Hudson, John Hudson, and seven others, mostly sick and disabled, into the shallop. In the boat were also placed a gun, some powder and shot, an iron pot, some meal, a chest of carpenter's tools, and a few other things. The mutineers then cut the shallop adrift and sailed away as fast as they could, leaving Hudson and his comrades in the terrible plight so powerfully depicted in Collier's famous painting entitled "Hudson's Last Voyage." Whither the great navigator and his companions went and what became of them — whether they died of starvation, or were crushed in the ice, or were drowned, or frozen to death, or reached land and perished from the fury of the natives — no one knows. The mutineers — such as escaped starvation and the attacks of the Esquimaux — reached Ireland September 6, 1611. Returning to England they were at first imprisoned; but later they appear to have been released without further punishment.

All four of Hudson's recorded voyages were failures so far as their original object was concerned, for he discovered neither a northeast nor a northwest passage to the East Indies, but their secondary results were very important. His discoveries of the Arctic whale fisheries in his first two voyages led to the establishment of very valuable sea industries both among the English and the Dutch. The third voyage led to the settlement of New Netherland. And the fourth led to the very profitable traffic with the natives of Hudson's bay which is still maintained by the great Hudson Bay Company.

CHAPTER VI.

Hudson Enters the Employ of the Dutch.

There can be no doubt but that Hudson's voyages of 1607 and 1608 had a profound effect upon the Dutch East India Company.

On the back of one of the maps in the Hessel-Gerritz tract of 1612 it is distinctly stated that the Dutch East India Company was influenced to engage Hudson in 1609 by the preceding efforts

of the English to find a route to the north. The daring persistency by which Hudson reached the height of 81° 30′ — a higher latitude than any hitherto attained — and his confident declaration that the farther north he went beyond the 66th degree the warmer it grew, excited the fears of the Dutch merchants that a northern passage might indeed be found, and found by the English. Hudson, upon his return after his second voyage at the end of August, 1608, was in fact the most dangerous rival of the Dutch East India Company in sight. With the chances that he might be employed again by the English Muscovy Company, or by the King of France who had his eye on him, or by rival Dutch merchants who were not in the company; and with the foreshadowings of the truce with Spain which would probably release many Dutch ships and seamen from their hostile occupations and permit them to turn their attention to trading, the East India Company resolved to secure possession of Hudson for itself. Following the shrewd policy indicated by the company's action in August, 1603, if the company did not actually send out Hudson, it might at least make some bargain with him which would prevent his hiring out to any one else. So before the year 1608 was out, Hudson was invited to Amsterdam. There he conferred with that group of geographical investigators (including the Rev. Peter Plantius, one of the most eminent students of geography in Europe; and Jodocus Hondius, a scientific map-maker and friend of Hudson's), whose researches made Amsterdam the center of geographical science at that time. Our evidence of this is the indorsement found upon a translation of a sailing treatise written by Iver Boty (or Bardsen), showing how to reach Greenland. This treatise was "translated out of the Norsh Language into High Dutch in the yeere 1560. And after out of High Dutch into Low Dutch by William Barentson of Amsterdam who was chief Pilot aforesaid. The same copie in High Dutch is in the hands of Jodocus Hondius, which I have seene. And this was translated out of Low Dutch by Master William Stere, Marchent, in the yeere 1608 *for the use of me Henric Hudson.* William Barent-

son's Booke is in the hands of Master Peter Plantius who lent the same to me."

Another evidence that Hudson sought from the Dutch geographers all attainable evidence concerning a northwest passage as well as one to the northeastward is afforded by the Hudson tract of Hessel Gerritz (1612–13), which says that when Hudson was negotiating with the Dutch East India Company in 1609 he begged from Plantius the journals of Weymouth's voyage to Davis Strait in 1602 and that "from them he inferred that the route of George Weymouth through the Straits above Virginia would lead to the ocean which bounds that country."

Fortified with the account of Davis' voyages published in 1600, with the "new map" accompanying it, and with the information from Weymouth's journals, we can understand that the idea of trying to find an American route to the Indies, either in latitude 40° or by way of Davis Strait, was well fixed in Hudson's mind when he set forth in the Half Moon in 1609 for his attempt by way of Nova Zembla and probably was well known to his advisers.

In the conferences between Plantius and Hudson concerning the polar enterprise, both of them agreed in the theory that north of a certain latitude, in what we might call the region of the "midnight sun," the farther one went northward the warmer it was. Plantius explained this by arguing that near the pole the sun shone five months continuously, and although its rays were weak, yet, like a small fire constantly burning, it would render the climate more temperate than a fire "which is but lighted and then immediately extinguished."

By these arguments the Amsterdam Directors were well persuaded of the feasibility of an Arctic passage, but the Zeeland Chamber strongly objected. The Amsterdam Chamber, therefore, remunerated Hudson for his trouble and dismissed him with the promise of employing him in 1610.

Had the Dutch East India Company persisted in this decision, it is possible that the whole future history of New York and New England might have been different, for secret negotiations were

under way which might have led to Hudson's engagement in the service of France.

With Champlain then in Canada and destined to enter New York State from the north in 1609, had Hudson explored the Hudson river under French auspices, it would seem as if nothing could have prevented the inclusion of New York and New England within the dominion of New France.

Prior to Hudson's arrival in Holland, Pierre Jeannin, the French ambassador at The Hague, had made overtures to Isaac LeMaire of Amsterdam in behalf of Henry IV with a view to organizing an expedition for the purpose of discovering a northern passage to the Indies, but the French King was waiting until the cessation of hostilities between The Netherlands and Spain was assured before actually authorizing the enterprise. When Hudson was dismissed by the Dutch East India Company, LeMaire entered into secret negotiations with him, and informed Jeannin of the splendid opportunity to win laurels for France. Jeannin in turn wrote a letter communicating this information to Henry IV, but meanwhile some of the members of the Dutch East India Company, who had learned that Hudson had treated with LeMaire, became afraid that Jeannin might wish to employ Hudson in the interest of France. The Directors of the Amsterdam Chamber, therefore, reconsidered their former decision, renewed their negotiations with Hudson, and on December 29, 1608, commissioned Dirck van Os, Jan Poppe, and Arent ten Grotenhuys to draft a contract for his engagement. This committee was also directed to prepare the necessary letters to the other Chambers of the East India Company. At the same time the Amsterdam Chamber appointed Marcus de Vogelaer and Jan Hermanz, in conjunction with Dirck Gerritz, the chief boatswain of the Chamber, to look out for a suitable vessel of from twenty-five to thirty-five lasts (fifty to seventy tons) for Hudson.

Van Os, Poppe, and Grotenhuys performed their work with expedition and on January 8, 1609, the following contract was signed:

THE HALF MOON.

Facsimile of Hudson's ship of 1609 as she appeared in New York Harbor in 1909. See page 259.

Translation of Contract with Henry Hudson.

On this day, the 8th of January, in the year of our Lord, one thousand six hundred and nine, the Directors of the ten years' account of the Chamber of Amsterdam of the East India Company on the one part, and Mr. Henry Hudson, Englishman, assisted by Jodocus Hondius, on the other part, have agreed and covenanted with each other in the manner following, to wit: That the aforesaid directors at the first opportunity shall equip a small ship or yacht of about thirty lasts, well-provided with men, provisions and other daily necessaries, wherewith the aforenamed Hudson shall sail about the first of April to seek a northerly passage around the north side of Nova Zembla, and so long follow the longitude (or, that direction) that he shall be able to sail southward to the latitude of sixty degrees, and try to become as well acquainted with the lands (seen) as shall be possible without considerable loss of time; and, be it feasible, immediately to return in order to give to the Directors a faithful report and relation of his voyage, and hand over his journals, courses, charts, and (account of) everything that has befallen him on the voyage, without holding anything back. For which intended voyage the Directors shall pay to the aforesaid Hudson, as well toward his outfit for the aforesaid voyage as to the support of his wife and children, the sum of 800 guilders. And in case (which God forbid) he should not return to this country here or hereabouts within a year, the Directors shall pay besides to his wife 200 guilders current money, and thereupon shall not be bounden further to him and his heirs; unless thereafter he should still arrive, or that he were come within the year and had found the passage good and convenient for the Company to use again; in which case the Directors shall recompense the aforenamed Hudson for his perils, labors and science in their discretion; wherewith the aforenamed Hudson is content. And in case the directors thereupon deem it good to repeat and continue the same voyage, it is covenanted and agreed with the aforenamed Hudson that he shall take up his residence here in this country with his wife and children, and accept employment with no one other than the Company, and that in the judgment and discretion of the Directors, who also promise in such case to satisfy and content him in all equity and fairness for the same further service. All without deceit or fraud. In witness of the truth are hereof made two contracts of one tenor, and by both parties undersigned, as well as by Jodocus Hondius as interpreter and witness.

Dated as above. Was signed, Dirck van Os, J. Poppe, Henry Hudson. Lower stood, By me, Jodocus Hondius, as witness.

In making this contract, Hudson, who could not speak Dutch, was assisted by Jodocus Hondius as interpreter, and in the Dutch copy of the contract preserved in The Hague — not the original, but a Dutch copy — Hudson's first name is spelled three times "Henry." That was the way in which he signed it and as he was an Englishman it is a mistake to call him "Hendrick." [13]

The contract having been signed, preparations for the voyage went forward actively, and on January 19, 1609, the Amsterdam Chamber voted that Hudson be given 150 guilders on account of his wages. Within a few days about twenty-five pounds Flemish was paid to him. Soon thereafter, he had a great dispute with Gerritz, the boatswain of the Chamber, concerning the wages which were to be paid to the Englishmen who were to accompany him, some of whom had been with him on previous voyages. The Amsterdam and Zeeland Chambers were in active correspondence at the time, and from the letters of the Zeeland Chamber we infer that Hudson threatened to abandon the enterprise and start for England, for on March 14, 1609, the Zeeland Chamber wrote advising that "whereas the said Hutson has taken his departure he shall remain dismissed; and even if he came to change his mind with respect to performing the journey, Your Highnesses shall in no wise engage him but leave him dismissed." The Amsterdam Chamber was also advised to demand the return of the twenty-five pounds Flemish advanced to Hudson, and if he did not give it back willingly, to compel him by law to return it. It was also advised to hire somebody in his place. But with Jeannin and LeMaire ready to take Hudson into their service, the Amsterdam Directors were too discreet to break with him. Their differences with him were, therefore, composed, and the preparations for the voyage were completed.

[13] On February 25, 1906, Governor Higgins of the State of New York gave his official opinion to the effect that the name should be spelled Henry.

CHAPTER VII.

THE HALF MOON.

Name: The vessel placed at Hudson's service was the yacht the Half Moon. This is established definitely by the following entry in the "Memoriael" or Memorandum Book in the archives of the Chamber of Zeeland; "Schepen wtgeuren Ao. 1608 van Amsterdam/TJacht de halue mane/40/Schipper Heijndrick Hoitsen," which, by interpretation, means: "Ships sailed in the year 1608 from Amsterdam. The yacht Half Moon, forty lasts, Skipper Henry Hudson." This is confirmed by the following entry in the "Uitloopbookje" or "Sailing Book" of ships from 1603 to and including 1700 in the archives of the Chamber of Amsterdam: "Ao. 1608/Amsterdam/Jaght halve maen/40/gedestineert naer 't Noorden/1610 wederom gecomen," which means: "In the year 1608, (from) Amsterdam, (sailed) the yacht Half Moon, forty (lasts), destined for the north; 1610 has returned."[14] A "last" was equivalent to about two tons.

While the foregoing citations leave no doubt as to the identity of the vessel in which Hudson sailed, it may not be amiss to call attention to a "slip of the pen" of the secretary of the East India Company which has caused confusion to some writers partly as to the ship's name and partly as to whether she sailed alone. On September 1, 1609, the Council of Seventeen of the East India Company adopted a resolution requesting the deputies from the Amsterdam Chamber to produce the "orders and instructions which were given to the yacht Good Hope, sailed to the Weygadts."[15] And in the margin opposite this resolution is a later note to the effect that the Amsterdam deputies "have produced at the Assembly of the Seventeen the contents of this point.

[14] It does not clearly appear why the year 1608 is given instead of 1609 in the records above quoted, but possibly because of the old style of reckoning. The "style" of chronology was then in a state of transition, as appears from Juet's Journal, which begins in the old style and changes to the new style. In England and many European countries using the old style, the new year began on March 25th, so that the days from Thursday, January 1, to Friday, April 3, 1609, N. S., would have been the same as the days from Thursday, December 22, to Friday, March 24, 1608, O. S.

[15] The Weygadts or Vaigats was the strait at the southern end of Nova Zembla.

A copy is given, thereupon, to the respective Chambers, both of the instructions and of the contract made with Mr. Henry Hudson, the pilot." The Amsterdam Chamber had two yachts, both of forty lasts burden, the Half Moon and the Hope. That it was the Half Moon and not the Hope in which Hudson sailed is apparent from the Memoriael of the Zeeland Chamber and the Uitloopbookje of the Amsterdam Chamber, already quoted; and that the Hope did not accompany the Half Moon is shown by the Uitloopbookje which records that she sailed April 15, 1608 (for the East Indies), and was captured by the Spaniards July 15, 1610.

As to the spelling of the name Half Moon in Dutch, we have seen from the records already quoted that the name was spelled in Old Dutch "De Halve Maen" and "De Halve Mane." In modern Dutch it is spelled "De Halve Maan." [16]

As to the origin of the name, there has been some speculation, and a theory has been propounded to the writer which it may not be amiss to mention, if only to give the reasons for not accepting it. It will be remembered that in 1574, while the Netherlands were struggling to free themselves from the tyranny of Spain and smarting under their religious persecutions, Admiral Boisot's "wild beggars of the sea" from Zeeland appeared before Leyden, each wearing in his hat a crescent, the ancient symbol of Turkish rule, bearing the words "Liever Turx dan Paus" (rather Turkish than Popish). Such crescent-shaped emblems may yet be seen among the relics of the sixteenth century preserved in Holland, and it is suggested that the name of the Half Moon was derived

[16] When the replica of the Half Moon was built in 1909, the Hudson-Fulton Celebration Commission made an earnest effort to ascertain the spelling of the name in old Dutch in order that it might be given correctly on the official medal. Under date of The Hague, December 26, 1908, Vice-Admiral J. A. Röell of the Royal Netherlands Navy, under whose direction the new Half Moon was built, wrote as follows: "In new Dutch the word is written 'Halve Maan,' but it will appear on the poop of the vessel in the old spelling, as 'De Halve Maene.'" Therefore, the name was spelled "De Halve Maene" on the medal. Under date of February 3, 1910, Admiral Röell wrote to the author: "In the 16th and 17th centuries, everybody in Holland wrote and spelled names of objects and even of families just as he liked. So, for instance, the name Half Moon was spelled by some Halve Maan, and by others Halve Maen, or Halve Mane, or Halve Maene. So you can make a choice between them, just as the late Chief Constructor and myself made a choice and gave you an answer before."

from these emblems and was designed to express the same sentiment. It is our opinion, however, that there is no connection between these badges and the name of the Half Moon, but that the name was simply one of several astronomical names applied to ships in those days. Indeed, the words Moon and Half Moon were applied to ships years before the incident above mentioned. In 1553, a pinnace named the Moone sailed from Portsmouth, England, for Guinea. In 1563, a ship called the Three Halfe Moones sailed from Portsmouth for the Mediterranean. At later dates we find ships bearing such names as the Crescent (1590) and the Morning Star (1602). Probably the most distinguished namesake of the Half Moon was the ship of the Dutch States named the Half Moon, having Vice-Admiral John Kant on board, which took part in the battle between the Dutch and English ships on the one side and Spinola's fleet on the other in the English channel October 3, 1602.[17]

As a facsimile of the Half Moon was built by the people of Holland and presented to the Hudson-Fulton Celebration Commission in 1909, a somewhat particular description of the vessel may not be without interest.[18]

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[17] See Motley, "History of the United Netherlands," who quotes on this point: Fleming, 290–294; Bentivoglio iii, 516; Grotius xi, 607, 608; Haestens, 232 seq.; Meteren, 474.

[18] On December 16, 1905, the writer suggested to the Hudson Tercentenary Joint Committee (subsequently incorporated as the Hudson–Fulton Celebration Commission) the idea of reproducing the Half Moon. In 1906 he visited Holland and made researches among the Dutch archives and museums but could find no authentic model or picture of the vessel. A careful analysis of Juet's Journal of Hudson's voyage, however, supplied sufficient data concerning her masting, rigging, draft, and certain other details to determine her type. Her tonnage was ascertained from the archives of the Amsterdam and Zeeland Chambers before quoted. Many exterior details were suggested by the vignettes of vessels of the same type on maps of contemporary voyages; and Capt. John Smith's "Sea Grammar" suggested many details of the interior. In 1908 the Netherlands Hudson-Fulton Commission, under the patronage of His Royal Highness, Prince Henry, offered to build and present the new Half Moon to the Hudson–Fulton Celebration Commission of the State of New York, and on April 18th of that year, Jonkheer J. A. Röell, Vice Admiral retired of the Royal Netherlands Navy, wrote to the present writer as Assistant Secretary of the Hudson–Fulton Celebration Commission, stating that as there was no model of the Half Moon in existence, the Dutch would very much like to have an expression of the Commission's idea as to her appearance. "We should be very well able to carry out our own idea of the vessel by constructing a ship of eighty tons burden after another model of the period," said Admiral Röell, "but as we are afraid that in doing so we might disappoint American people, who, no doubt, have formed an idea of their own as what the Hudson vessel was

Dimensions: The principal dimensions of the new Half Moon were as follows: [19]

	Old Amsterdam measure, Feet – Inches.		Metric measure, Meters.	English measure, Feet – Inches	
Length from stem to stern (between perpendiculars)	63	0	17.832	58	6
Greatest breadth of beam.	17	5	4.940	16	2.5
Depth of hold from upper side of clamps to right line of 'tween-deck	6	4	1.801	5	10.9
Draft forward	6	2	1.749	5	8.8
Draft aft	7	6	2.135	7	0
Displacement about..	4,230 cu. ft.		95.9 cu. M.	3,386.8 cu. ft.	

like." In reply to this request our principal data were first submitted to and approved by Naval Constructor William J. Baxter, U. S. N., and were then forwarded to Admiral Röell by the late Admiral J. B. Coghlan, U. S. N., under date of May 12, 1908. Meanwhile the Hollanders were making independent researches of their own. They found great help in a unique engraving made by J. Saenredam and published in Amsterdam in 1606 by Willem Jansz. Blaeu, representing the water-front of Amsterdam with many ships of different types, including the type of the Half Moon. They also found guidance in Nicholaas Witsen's "Present and Past-Day Shipbuilding" published at Amsterdam in 1671. Of still greater value were the plans of the Half Moon's sister ship the Hope, which were found. The two ships were of the same burden, equipment and cost. From all these data, aided by some old models of ships found in a private collection in Amsterdam and particulars gained from the East India Company papers, the Hollanders formed their own conception of the Half Moon. Happily, the results of the two independent investigations agreed, and Admiral Röell, on June 1, 1908, acknowledging the receipt of Admiral Coghlan's letter embodying our views, wrote: "I was pleased to see that the information you gave coincides with our own investigations about said vessel. We are now ready to fulfill our plan of constructing a ship entirely similar to the Half Moon." From the data thus gathered, the plans of the new Half Moon were prepared by the late Mr. C. L. Loder, Director of Shipbuilding of the Netherlands Navy Department, and from these plans the replica was built at the Royal Ship Yards at Amsterdam under the general direction of Admiral Röell and under the immediate supervision of Assistant Engineer of the Navy E. J. Benthem. The keel was laid October 29, 1908; and the ship was launched April 15, 1909. She was taken by water to Rotterdam, and then placed on board the Holland-America Line Steamer Soestdyk by which she was brought to New York, arriving July 22, 1909. On July 23, she was hoisted from her cradle and was replaced in her natural element at the Brooklyn Navy Yard. She was built of the best selected oak and was a real ship in every respect. She could have sailed the seas as well as her prototype but was brought over on the Soestdyk as a matter of convenience. The author acknowledges his obligation to Constructor Baxter for valuable co-operation in the preparation of chapters VII and VIII of this paper.

[19] The old Amsterdam foot was equivalent to 0.2830594 metres (according to "Verhandeling over Volmaakte Maaten en Gewigten" by J. H. Van Swinden, Amsterdam, 1802.) or 11.144272 English inches. As there were only 11 inches in the old Amsterdam foot, an old Amsterdam inch was equivalent to 0.0257326 of a metre or 1.013115 English inches.

The tonnage of the Half Moon was stated in the records of the Amsterdam Chamber to have been forty lasts, equal to about eighty tons.

While the Half Moon seems like a cockle-shell compared with modern ocean-going vessels, the perils of Arctic exploration were braved in even smaller vessels in those early days, for John Davis' second voyage to find the northwestern passage was made in the Moonshine, a bark of only thirty-five tons.

Draft: The draft of the original Half Moon was pretty accurately deduced from Juet's Journal, for under date of August 28th we learn that she would not float in five feet of water while under date of October 4th we learn that she floated in eight and one-half feet without striking. Her draft, therefore, was between five and eight and one-half feet. Under date of September 22d, we are informed that a depth of seven feet with unconstant soundings was too uncertain to warrant further explorations beyond the site of Albany. We, therefore, conclude that seven feet, as calculated above, was her actual draft. That she drew more water aft than forward we know from the records of her striking her rudder on August 29th.

Hull: The hull of the new Half Moon was tarred below the waterline and had a generally brownish color above, with the exceptions noted hereafter. In general form, the hull had a full round bow and a full broad bottom. A broad bow was believed to keep the ship from pitching her head into the sea, but if too broad she could not "carry a bone in her mouth or cut a feather," to use an old seaman's phrase, or, in other words, she could not "so swiftly press the water as that it foameth and in the dark night sparkleth like fire."[20] From the bow projected an ornamental "galjoen" (galleon) or beakhead which was in the nature of a gallery. "The Beakhead," says Capt. John Smith in telling how to build a ship, "is without the ship before the fore Castle, supported by the maine knee, fastened into the stem, all painted and carved as the stern, and of great use, as well for the grace and countenance of the ship as a place for men to ease themselves in.

[20] Referring to the phosphorescence of seawater caused by a rapidly moving vessel.

To it is fastened the coller of the maine-stay, and the foretacks there brought aboord; also the standing for rigging and trimming the spretesaile geare." (See reference to the spritsail following.) The beak-head was also used as a place of punishment for hot-headed sailors who were sometimes fastened there so that the dashing waves might cool their tempers. Unclean sailors were also put there for obvious purposes. At the forward extremity of the beak-head was the figure-head — a red lion with golden mane. The bow of the ship was painted green, with red and yellow ornaments in the shape of little sailor's-heads. Three anchors were hauled up to the channels, two on one side and one on the other. The sides of the ship fell in rapidly above a line about midway between the upper and lower decks, giving her cross-section a pear-shape. The high forecastle at the bow — a relic of the early days when it was literally a fighting place — and the high poop aft further added to her quaint appearance in comparison with modern vessels. The sides of the poop were painted sky blue with white clouds. The high, pear-shaped stern was beautifully carved and decorated. In the uppermost panel, back of the mate's cabin, upon a blue background studded with yellow stars, was a yellow crescent moon with the profile of the "man in the moon" in the concavity of the crescent. In the panel below this, above the windows of the captain's cabin, were the arms of Amsterdam with the three crosses, the arms of the Seven Provinces (the red lion on a gold background), and the monogram of the Amsterdam Chamber of the Dutch East India Company. The latter consisted of the initials "V. O. C.", standing for "Vereenigde Oost-Indische Compagnie" (United East India Company), surmounted by an initial "A" standing for Amsterdam. Five knees supporting the transom stern were carved to represent human heads, and painted yellow. Above the stern was an ornate lantern.

Masts and Sails: The Half Moon had a *bow sprit,* bearing a spritsail (see Juet's Journal May 27th, July 4th and October 4th). The spritsail was a square sail attached to a yard hung from the bowsprit. It was sometimes called a blind-sail, because it obstructed the view of the helmsman. The triangular jib or stay-

sail was not then in use. She had a *foremast* (June 15th, 19th, July 18th) bearing a square fore-sail (June 5th, 21st, 24th, August 8th, 9th, 22d, 30th, September 27th) sometimes called the fore-course (May 26th, June 19th, 27th, August 21st, 22d.) Above this she had a *foretopmast* bearing a foretopsail (September 27th.) The foremast was in the extreme bow of the ship and raked forward, while the main-mast raked backward. This was done to give more distance between the topsails and allow more vent for the full sail. She had a *mainmast* bearing a mainsail (May 27th, June 16th, 21st, 23d, August 9th 22d, 30th, October 4th) sometimes called the maincourse (June 5th, 27th, August 21st.) This was surmounted by a *maintopmast* carrying a maintopsail (May 27th, June 11th, August 8th, September 27th.) The mainmast was nearly in the middle of the ship. Near the stern she had a *mizzen-mast* carrying a mizzen sail (August 22d.) This sail, unlike the others, was Lateen (Latin) rigged — that is to say, it was a triangular sail attached to a long yard slung diagonally across the mizzen-mast. The latter had no top-mast.[21] She had a complement of *bonnets* (June 8th, 12th, July 27th August 20th), sometimes called drablers, which were additional strips of sail-cloth designed to be attached to the bottom of the mainsail and foresail to enlarge their area. At the top of foremast and mainmast respectively was a "Top, Cap or Bowle," to use Captain Smith's terms, sometimes called the *Crownest* — "which is a round thing at the head of either Mast for men to stand in." The highest lookout on the ship was the topmasthead (August 29th.)

Colors: Upon the bowsprit was a staff carrying a "geus," or jack — a small flag of orange, white, and blue, the colors arranged alternately and radiating from the center. At the foretop was the flag of Amsterdam — a tri-color of red, white, and black with the arms of Amsterdam in the white field. At the maintop was the flag of the United Seven Provinces — upon a gold field, a

[21] Murphy, in his "Henry Hudson in Holland" is in error when he says that the Half Moon had but two masts. It is singular that a writer so painstaking should have overlooked the convincing testimony of Juet's Journal cited above.

red lion rampant, bearing in one forepaw a sword and in the other seven arrows. The mizzenmast was surmounted by a small vane. From a staff at the stern floated the East India Company's flag. This was the national tricolor of orange, white, and light blue (reading downward). In the center of the white stripe was the monogram of the Amsterdam Chamber of the United East India Company before described.

Interior: The ship had two full decks and a poop-deck. The uppermost of the two full decks was called the upper-deck. Beneath it was the "tusschendek" or 'tween-deck. Below the 'tween-deck was the hold. We will describe the interior beginning at the bottom:

Hold: The hold, which was 5 feet 10.9 inches deep, just allowed a man to stand erect on the bottom of the ship without striking his head on the timbers of the deck above. It was open from stem to stern without compartments and, being mostly below the waterline, had no ports. It was used for stowing provisions, water-casks, cables, general cargo, ballast, etc.

'Tween-deck: The 'tween-deck room was very cramped. As there was scarcely four feet space between the deck and the flooring of the upper deck, a man could not stand upright. At the forward end were the hawse-holes for the anchors. Upon this deck were the two heavy guns of the little craft. These two pieces projected from portholes, one on either side of the ship about midway between the foremast and mainmast. In the new Half Moon they were pieces of 800 pounds each and eight centimeters (3.15 inches) calibre.[22]

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[22] Juet's Journal (October 2d) shows that the guns on the original Half Moon were what were called Falcons. From Captain Smith's "Sea-Grammar" we learn that the cannon used on shipboard at the beginning of the seventeenth century ranged in size from 8½-inch bore, down to 1-inch bore. They were called Cannon Royal (8½"), Cannon (8"), Cannon Sarpentine (7½"), Bastard Cannon (7"), Demy Cannon (6½"), Cannon Petro (6"), Culvering (5½"), Basilisco (5"), Demy Culvering (4½"), Bastard Culvering (4"), Sacre (3½"), Minion (3¼"), Falcon (2⅓"), Falconet (2"), Sarpentine (1½"), and Rabonet (1"). The Basilisco had the greatest range, carrying 25 paces point blank and 3,000 paces "randome." The Falcon weighed 800 pounds, carried a 2¼-pound shot, and, fired with 2¼ pounds of powder, had a range of 15 paces point blank or 1,500 paces "raudom." None of the 2¼-pound shot on the new Half Moon was globular and they were limited in size to easy insertion through the gun-muzzle. It is interesting to compare the

On the walls were rammers, sponges, gunner's ladles, match-sticks, a ball-extractor, lanterns, and pikes. Nearly opposite the mainmast on either side was another porthole. Against the mast was stowed one of the water-casks. Just abaft the mainmast on the starboard side were a little pantry (bottelarij), the berth of the steward (kooi van den bottelier), and a closet (kast). In the corresponding position on the port side was a kitchen or galley (kombuis). This contained a tiled fireplace with two brass-topped andirons, a pair of iron tongs, and a poker. A brass fire-chain suspended from the top of the fireplace held the pots and kettles over the fire. Outside the fireplace on a shelf were a brass skimmer, a brass snuffer, and various kitchen utensils. Under the shelf were peat and wood for fuel. On the wall was a sulphur-stick box. Back of the galley was the berth of the cook (kooi van den kok) and another closet (kast). Aft of the later was a sail-room (zeilkooi). Between the mainmast and mizzenmast was the spindle of the windlass which came down through the upper deck and which was used to wind up the anchor cables and hawsers. Just abaft the mizzenmast, the after part of the ship was divided off by a bulkhead. On the starboard side within this compartment was the powder magazine containing the gunner's necessaries (bergplaats konstabels benoodigheden); and opposite to it on the port side was the iron plated bread-room (broodkamer) for food-stuffs. In the space between the magazine and bread-room played the tiller of the rudder. At the forward end of the tiller was fastened a whip-staff, a sort of wooden handle or lever which went up vertically through the upper deck just abaft the mizzen-mast and by which the ship was steered from the upper deck. In the stern, on either side of the stern-post, was a porthole.

Upper Deck: At the forward end of the upper deck was the forecastle, the sleeping place of the crew, containing five berths (kooien). Each berth could hold two men if necessary. In the

range of these primitive weapons with the announcement which was made from Washington, October 29, 1909, that the greatest naval gun in existence would soon reach the Washington gun-factory for rifling. This piece, when completed, will have a calibre of 14 inches, and measure 53½ feet in length (only 2 feet less than the length of the Half Moon on her load water-line). Its fighting range will be 5 miles and its maximum range 25 miles and may be more.

forecastle of the new Half Moon, after the manner of the ancient time, were three brass tablets bearing inscriptions which, translated, were as follows: "Honor thy father and thy mother," "Do not fight without cause," and "Good advice makes the wheels run smoothly." Between the forecastle and the mainmast was stowed the ship's boat — a chunky little rowboat with half-round ends, about twelve feet long and five feet wide. The original Half Moon had two boats, if not more. They were called the "boat," the "scute" and the "shallop." The boat and scute are both mentioned at the same time on July 25, 1609. The shallop probably was identical with one of those two. On August 9, 1609, the shallop was dashed against the stern of the Half Moon and so badly injured that she was cut away; and the Half Moon still had left a boat which was in almost daily use on the Hudson river. Near the rail on the new Half Moon were two swivel-guns (pieces of 100 pounds each with a calibre of 3.2 millimetres), called in Dutch "kamerstukjes." These corresponded to the "two stone-pieces or murderers" of the original Half Moon (July 25th) — light pieces of ordnance usually used on shipboard at the bulkheads of the forecastle, half-deck, and steerage to sweep the decks and repel invaders. Just back of the mainmast, fastened to the deck, was a great wooden block or pulley, carved in the shape of the bust and head of a man, through which passed some of the ropes used to hoist the yards. This block was variously called the "big man-servant," the "silent servant," and the "knight" — in English, the "knight-head." Through the deck on the port side, over the galley on the deck below, issued the smokestack of the fireplace. About midway between the mainmast and mizzenmast was the windlass or capstan. Just back of the capstan was the ship's pump. In using the pump it was customary to count the strokes made during each watch, "whereby they know if the ship be staunch, or tight, or how her leakes increase." Just abaft the mizzenmast, where the whipstaff or jack-tiller connecting with the tiller came up through the deck, and protected by a little roof or hood, was the "stearage-room, where he that steareth the ship doth alwaies stand." Before him was the binnacle contain-

ing the compass. Above him, but within his reach, was the ship's bell. Immediately behind the steersman's platform was the captain's cabin. It was about five feet three inches high from floor to ceiling, and was lighted by four windows — two in the stern and one on each side. This compartment was provided with a berth (kooi), two or three closets (kasten), a table (tafel) with a movable top, and a bench with four divisions. The divisions of the bench were provided to give the occupants a hold when the ship rolled. In the overhang of the stern was a conveniency (gemak). Under the berth were a medicine chest and a chest for books — the latter made in Gothic style with iron trimmings and containing a Bible, a psalm book and other books. On the table lay the "new map" described on page 241 ante, and a copy of the contract between Hudson and the Dutch East India Company, given on page 257 ante. Other equipments of the captain's cabin of the new Half Moon were a globe, a cross-staff, an astrolabe, a compass and silver sun-dial in a case, a shark-skin box containing instruments, a pair of dividers, some proportional rulers for purposes of computation, a brass tinder-box, pewter plates, spoons, goblets, jugs, stone pitcher, brass candlesticks, an oil lamp, a mortar and pestle, four muskets (Juet's Journal October 2d) and some bandoleers or cartridge belts (Juet's Journal October 1st).[23] This was the cabin which the Indians entered on October 1st by climbing up the rudder and from which they stole some articles with fatal results. The furnishings of the new Half Moon were faithful copies from genuine antiques in the Netherlands Museums, such, for instance, as objects which were brought back to the Netherlands from Nova Zembla and which were used by Heemskerck and Barentz, when they wintered there. The interior of the captain's cabin was painted red.

Poop Deck: Above the captain's cabin was the poop deck, the after portion of which was occupied by the cabin of the mate or

[23] The muskets on the original Half Moon were "match-locks" (see Juet's Journal, September 6th) that is to say, instead of being discharged by the striking of flint and steel, they were fired by touching a slow-match to the priming.

steersman (hut van den stuurman), a smaller and simpler apartment than the captain's cabin. It was lighted by a small window on either side, and contained a berth and cupboard. This cabin was painted green in the new Half Moon.

Such, in its general features and equipment, was the little vessel in which Hudson and his crew set forth in their memorable voyage in 1609.

Crew: Hudson's crew in 1609 consisted of "eighteen or twenty hands, partly English, partly Dutch," says Van Meteren. The number was probably less than twenty, as Van Meteren says in another place that upon Hudson's return in 1609, he proposed to set forth again, and asked to have the number of his crew increased to twenty. While we have full lists of names of his crews on his other three known voyages, we know positively the names of only two men who were with him on the voyage in 1609. One of these was Robert Juet of Limehouse, who had been his mate on the voyage of 1608 and was his mate during the first part of the voyage of 1610. On the latter voyage, Hudson became dissatisfied with Juet's conduct and appointed another mate in his place, with the result that Juet joined the conspirators who consigned Hudson and a few faithful friends to their terrible fate in Hudson's bay. Later on that same voyage, Juet himself died. On the voyage of 1609, Juet was not mate, but apparently secretary and assistant navigator. In Juet's Journal of 1609 there are several passages referring to observations of the latitude, etc., written by him in the first person singular. Prickett's account of the voyage of 1610–11 indicates that Juet pretended to some knowledge as a navigator. Hudson's mate in 1609 was a Dutchman (says Van Meteren), but we do not know his name. He figures conspicuously in Juet's Journal as "our Master's Mate." The second member of the crew whose name we know was John Colman, who was killed by the Indians in New York harbor September 6th. Colman had been with Hudson on his voyage in 1607. As a comparison of the names of the crews of the first, second, and fourth voyages shows that Hudson had with him on each voyage from four to seven men who were with him on one

or more other voyages, it is probable that the English portion of his crew in 1609 contained others whose names appear in the records of 1607, 1608, and 1610–11 if we could identify them; and as John Hudson, the boy — supposed to have been the master's son — was with him on *all three* of the other voyages, it is not unlikely that he was with his father on the voyage of 1609.

CHAPTER VIII.

HOW THE SHIP WAS NAVIGATED.

Before describing the voyage of the Half Moon, we will notice certain features of the science of navigation as it existed 300 years ago, and as we know or may reasonably conclude it was practiced by Hudson.

Captain John Davis, in his book called "The Seaman's Secrets" (1607), says that with the sea-compass, cross staff, quadrant, astrolabe, chart, "a magnetical instrument for finding the variation of the compass," an horizontal planisphere, a globe, and a "paradoxical compass," a skillful seaman could make all hydrographical, geographical, and cosmographical demonstration without error. The first three, however, he considered sufficient for the seaman's use.

Sea-Compass: The original Half Moon of course had a sea compass which did not differ materially from the modern compass. It consisted of a circular box, within which, suspended upon a pivot, was a circular card or fly. This card was divided into the usual thirty-two parts, the north point being marked by a fleur-de-lys. To the under side of the fly were affixed some magnetic wires, causing the north point of the fly to point toward the magnetic north. Sometimes the wires were adjustable so that the compass could be corrected so as to point to the true north. On the vertical portion of the inside of the compass box was a black mark (the lubber's line) to which the north point on the fly pointed when the ship was headed north. The course of the ship was known by observing the point on the fly opposite which the lubber's line was at any time. The compass was suspended with

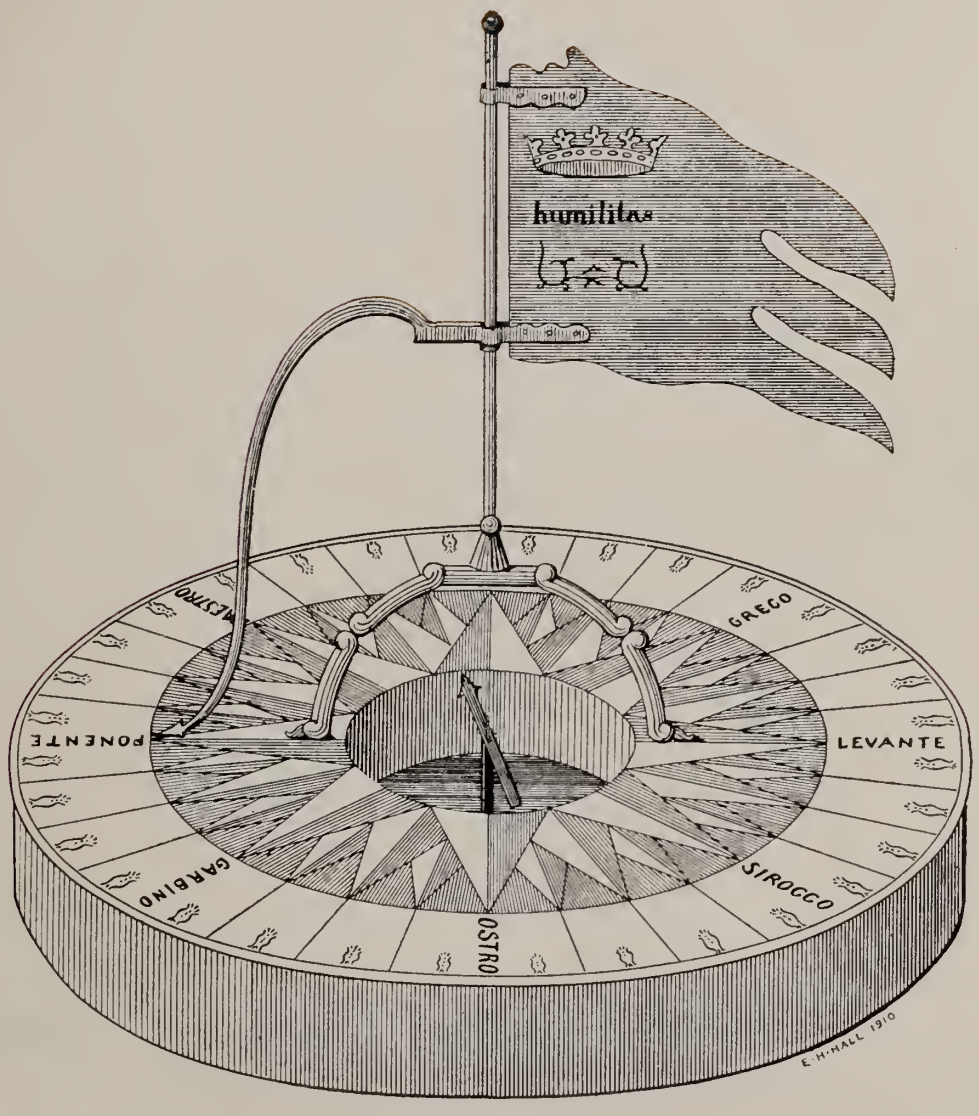
a universal motion in a square wooden box nailed together with wooden pins, because iron nails would attract the compass. This box, now called the "binnacle," in Hudson's day was called the "bittacle." "This," says Captain Smith, "is built so close that the lamps or candle only sheweth light to the stearage." Hudson's bittacle was lighted with candles. (See Juet's Journal of June 1, 1609.)

Hudson was usually very careful to mention whether he used a corrected or uncorrected compass in his observations. At the beginning of the journal of his voyage in 1608 he says: "The courses obserued in this Iournall were by a Compasse, that the Needle and the North of the Flye were directly one on the other." When he reached the Orkneys on his voyage of 1610, he "set the north end of the Needle and the North of the flie all one." In Juet's Journal of the voyage of the Half Moon, the ship was steered by the uncorrected or "varyed compass," (July 4th,) but certain observations of the direction of the wind, etc., were made with another or "true compass." (July 13th.)

Traverse: It is probable that upon Hudson's bittacle was a traverse "which is a little round board full of holes upon lines like the compass, upon which, by the removing of a little sticke, they keep an account how many glasses (which are but halfe houres) they steare upon every point."

True Compass: The true compass above cited was a portable instrument and was adjustable for magnetic "variation." The observation of the direction of the wind by the compass, as above noted, shows that it was surmounted by a little vane and pointer, as represented in pictures of compasses of the period.

Azimuth Compass: The Half Moon also had an azimuth compass, that is to say, a portable compass with two fixed sights for observing directions. This we know from the reference in Juet's Journal (July 29th) to the observation of the setting sun by the compass. (See "Magnetic Declination" following.) The fly of the azimuth compass was graduated into degrees. This is what Captain Davis, in his "Seaman's Secrets," calls "a magnetical instrument for finding the variation of the compass."

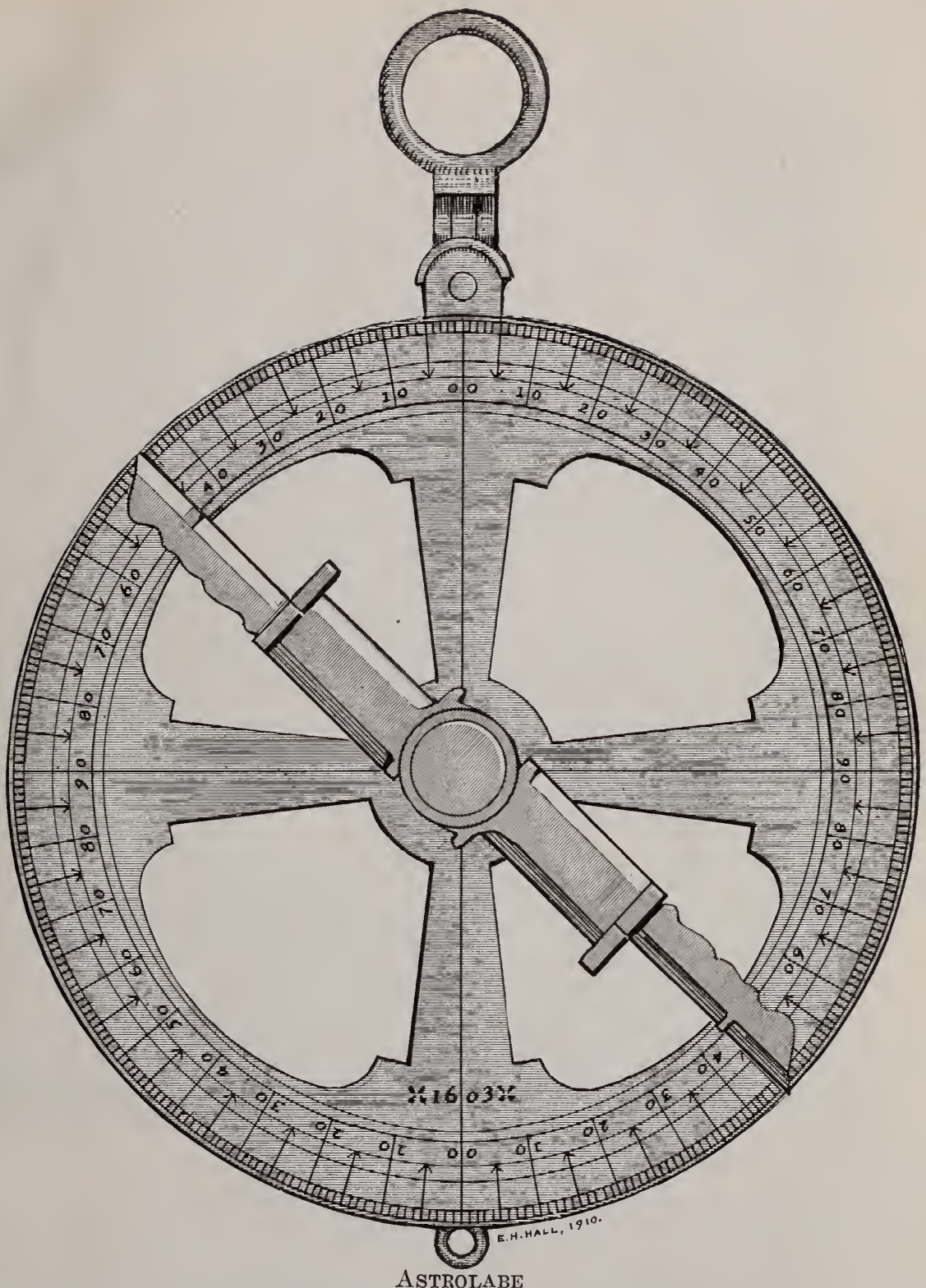


Wind Compass of the 16th Century.

This drawing by the author is based on a woodcut in Pigafetta's "Voyage" but is made in more accurate perspective. When the compass was set so that the point of the needle was opposite the north point of the dial, the pointer attached to the weather vane indicated the direction from which the wind blew. On this compass the eight principal points are indicated by the Italian names for the corresponding winds: North, Tramontana; northeast, Greco; east, Levante; southeast, Sirocco; south, Ostro; southwest, Garbino; west, Ponente; northwest, Maestro. Winds from the intermediate points were called Greco-Tramontana (north-northeast); Greco-Levante (east-northeast), etc. See page 272.

CROSS-STAFF OF EARLY SEVENTEENTH CENTURY.

Cross-staff and photograph by the author. Impersonation by Mr. Reginald Pelham Bolton. This cross-staff is made according to the rules given in "The Seaman's Secrets" by Capt. John Davis (1607). Elevations of from 30 to 90 degrees are measured by moving the transverse piece along the staff until the ends of the transversary coincide with the lines of sight to the horizon and the sun's semi-diameter, and reading the scale on the side of the staff. Elevations of less than 30° are measured by setting the transversary immovably at 30°, sighting across the little sliding vanes on the transversary, and reading a different scale on the latter. Elevations of less than 30° may also be measured by means of shorter transversaries, used as the one above described, but reading on scales on the staff graduated in proportion to the length of the transversary. See page 276.



ASTROLABE

The above drawing is based on Champlain's astrolabe which is in the valuable private collection of Mr. Samuel V. Hoffman, President of the New York Historical Society. The original instrument, which is 5⅞ inches in diameter, is too dark with age to be photographed satisfactorily. See page 278.

PLUMB-LINE QUADRANT OF EARLY SEVENTEENTH CENTURY.

Quadrant and photograph by author. Impersonation by Mr. Reginald Pelham Bolton. This quadrant is made after a figure in "The Seaman's Secrets" by Capt. John Davis (1607). By sighting on an object through the two sights affixed to one side of the quadrant, the angle is indicated by the plumb-line on the graduated arc. This quadrant is graduated from zero (nearest the observer) to 90° and indicates the angle from the zenith. The figure of a similar quadrant in "Les Usages du Quadrant" by Jean Tarde (1627) is graduated in the opposite direction and indicates the angle from the horizon. Davis' method saves one step in computing latitude. See page 279.

Magnetic Declination: The magnetic declination, called by mariners the variation of the compass — that is to say, the departure of the compass needle from the true north — which was first recorded by Columbus, was carefully observed by Hudson on every possible occasion. The magnetic declination was ascertained in Hudson's day by sightings made upon the sun at sunrise, midday, or sunset, with the aid of an azimuth compass. Juet's Journal of July 29, 1609, says: "At night we tryed the variation of our Compasse by the setting of the Sunne and found that it went down 37 degrees to the northward of the west and should have gone downe but 31 degrees. The Compasse varyed 5 and a halfe degrees."

The method of ascertaining the magnetic declination was as follows: At sunrise or sunset, the azimuth compass was placed in a convenient position and a sighting made on the sun, and the position of the sun read on the scale of the fly. If the fly was not graduated into degrees, the reading was arrived at by calculating $11\frac{1}{4}°$ "betwixt point and point." Then the pilot referred to his Sea Manual (described hereafter.) Finding therein the sun's declination for that day, the pilot referred to the table of the sun's rising and setting, and found at the head of the table the degrees of the sun's declination. Then he looked on the left side of the table for his latitude (as ascertained in the manner described hereafter), and opposite this latitude under the declination for that day he found in the table the sun's amplitude, that is, how much the sun actually rose north or south of true east or west on that day. Then, from the point on the fly at which the sun was observed to rise (or set,) the degrees of amplitude were reckoned, northward if the sun had a south declination and southward if it had a north declination, and where the degrees of amplitude ended, there was the true east, or west. A comparison between that point on the fly and the point at which the sun was observed disclosed the declination of the needle from true north.

In a similar way the magnetic declination was ascertained at noon. On July 18, 1609, Juet records that when he observed the

sun at its highest altitude, it began "to fall at a South-South-west Sunne." That is to say, it was south-south-west with reference to the uncorrected compass when it should have been due south. As the sun, of course, was on the meridian when it began to fall, it was the compass which was in error, and the departure in this case was $22\frac{1}{2}$ degrees.

Hudson's records of magnetic declination should prove of assistance to the critical student in locating the navigator's whereabouts. The author hopes at some future time to make a more careful investigation of this branch of the subject, particularly with reference to the anchorages of the Half Moon in the vicinity of New York and in the Hudson river. The recent investigations with the nonmagnetic ship "Carnegie" may produce some instructive results bearing on the subject. It may be noted here, for the convenience of any one who may pursue the subject further, that the record of 8° declination to the westward recorded in Juet's Journal under date of September 2d is estimated by the United States Coast and Geodetic Survey (Report for 1895, part II, appendix No. 1, page 207) to contain an error of about 2°. On the night of September 13th, when the Half Moon was in the lower reaches of the Hudson river (probably near the northern boundary of New York city,) the declination of the needle was found to be 13°. The Coast and Geodetic Survey, on page 191 of the publication above cited, makes no reference to any error in this observation of 13°, although there is a difference of 5 degrees between Hudson's observations within a distance of thirty or forty miles. It is evident that the observations of September 2d and 13th require further consideration before final judgment is passed on them. In considering magnetic declination at points in the Hudson river, care must be taken to make allowance for the influence of magnetic rocks or iron deposits, such as may be found at Stony Point. For comparison with the isogonic lines in the vicinity of New York, we quote from a letter dated February 26, 1910, from Hon. O. H. Tittman, superintendent of the United States Coast and Geodetic Survey, who

writes: "In accordance with the best information which we have concerning the magnetic declination in the vicinity of New York, the nearest year to the present time in which the magnetic declination was the same as in 1609 was about the year 1890." This is confirmed by reference to the table of "Secular Variation of the Magnetic Declination" on page 307 of the Report of the United States Coast and Geodetic Survey for 1895, part II, appendix No. 1, eighth edition.

Time of Day by the Compass: Juet's expression, under date of July 18th, above quoted, that he observed "the Sunne to fall at a South-South-west Sunne" needs further explanation. While it meant, as above stated, that the sun at noon began to fall when it appeared to be south-south-west instead of south, he could have conveyed that idea, if he had wished, by saying that the sun began to fall at the south-south-west; instead of which, he says that it began to fall at a "south-south-west Sunne." This really means that by compass time, the sun began to fall at 1.30 P. M. instead of at 12 M. In other words, the compass was an hour and a half, or 22½ degrees out of the way. Similar expressions are frequent in the relations of early navigations. For instance, in the journal of Hudson's voyage of 1607 he speaks of a flood tide which occurred "at a South-west Sunne;" of having arrived at a certain place "by a South-east Sunne;" of having sailed eight leagues "from a North Sunne to an East Sunne," etc. All these expressions are simply a rough way of telling the time of day. For this purpose, the compass was divided into 24 equal parts to correspond to the hours of the day. The north and south points were called 12 o'clock; from north to south by way of the east the 12 divisions were numbered from 1 to 12; and likewise from south to north by way of the west. Thus north was 12 o'clock midnight; northeast 3 o'clock A. M.; east 6 o'clock; southeast 9 o'clock; south 12 o'clock noon; southwest 3 o'clock P. M.; west 6 o'clock; northwest 9 o'clock, and north 12 o'clock midnight. This was, of course, a very crude and inaccurate method of measuring time at sea, being subject not only to the inequalities of the sun-dial at different

times in the year, but also to the variations due to the varying position of the ship.

Dipping Needle: The dip of the needle below the horizon — called the inclination — discovered by Norman in 1576, was also the subject of observations by Hudson. For this purpose he used a dipping needle, called by him the "Inclinatory." There are references to it in his journals of his voyages of 1607 and 1608, written by himself, and if we had his own journal of the voyage of the Half Moon instead of Juet's, we would probably find similar references. On May 30, 1607, he says, for instance, "I found the needle to incline 79° under the horizon." On May 20, 1608, he says: "At noon by obseruation we were in 64 degrees 52 minutes and at this time and place the Needle declined vnder the Horizon by the Inclinatory 81 degrees." On June 19, 1608, "the Needle enclined vnder the Horizon 89½ degrees in the Latitude of 75° 22″ — almost vertically.

Cross-Staff: Hudson, in determining his latitude, was accustomed to observe the height of the sun by means of a cross staff. This we know from his own journal of his voyage in 1608, in which, under date of July 14th, when in the region of the midnight sun, he says: "This night proued cleere and we had the Sunne on the Meridian on the North and by East part of the Compasse. From the vpper edge of the Horizon, *with the Crosse-staffe,* we found his height to be 10 degrees 40 minutes, without allowing any thing for the Semi-diameter of the Sunne or the distance of the end of the staffe from the Center in the Eye." Thus, from Hudson's known habit of navigating with the cross-staff we may reasonably conclude that he used a cross-staff on board the Half Moon.

The cross-staff consisted essentially of two parts, the staff and the transversary or transom. The staff was simply a straight shaft of wood, perhaps an inch by half-an-inch or an inch in thickness and a yard long. Sliding upon this was a perpendicular cross-arm, about twelve inches long. These measurements were at the discretion of the maker and depended upon the convenience of

the user. Upon the staff was a scale, indicating the angle subtended by two straight lines tangent to the ends of the transom and meeting at the end of the staff. Sometimes there were on the staff two transoms, one longer than the other, for a purpose hereafter described. An old engraving of Columbus in one of the Montanus' works represents him holding a cross-staff with three transoms.

Concerning the use of the cross-staff we cannot do better than copy Captain Davis' instructions from his "Seaman's Secrets:"

"First, place the Crosse-staffe to your eye in such good sorte as that there may grow no errour by the disorderly vsing thereof, for unless the center of your staffe and the center of your sight do ioyne together in your obseruation it will be erronious whatsoever you conclude thereby: your staffe so ordered, then moue the transuersary vpon your staffe to and fro as occasion requireth, vntil, at one and the same instant you may see by the vpper edge of your transuersary half the body of the Sunne or Stars, and that the lower edge or end thereof do likewise touch the horizon at that place where it seemeth that the Skie and the seas are ioyned, hauing especiall regarde in this your obseruation that you hold the transuersary as directly vpright as possibly you may; and you must begin this obseruation somewhat before the Sunne or Starres be at South, and continue same so long as you perceiue that they rise, for when they are at the highest then are they vpon the Merilian, and then you haue the meridionall altitude which you seeke, at which time they will be due south from you if your Compasse be good and without variation; and then doth the transuersary shew vpon the staffe the degrees and minuts that the sayd body is from your Zenith if ye degrees of your instrument be numbered from the Zenith toward the Horizon; or else it sheweth ye distance betweene the said body and the Horizon, if the degrees of your instrument be numbred from the Horizon, concluding 90 in the Zenith, as commonly crosse staues are marked which is not the easiest way."

"To finde the true placing of the staffe at your eye, thereby to amend the parallar false shadow of your sight, do thus: take a

staffe hauing two crosses, a long cross which endeth in 30 degrees and a short crosse which beginneth at 30 degrees where the long crosse endeth; put the long crosse vpon his 30 degrees and there make him fast; then likewise put the short crosse vpon his 30 degrees, there fasten him without moving; then set the ende of your staffe to your eye, mouing it from place to place about your eye vntill at one instant you may see the ends of both crosses, which when you finde, remember that place and the standing of your body, for so must your staffe be placed and your body ordered in all your obseruations."

Having ascertained the altitude of the sun by the cross-staff, the latitude was found simply by subtracting the altitude from 90° and adding the sun's declination if it was north and subtracting it if it was south — the declination being ascertained from the tables in the Sea Manual. No account was made of the dip of the horizon, the refraction of the atmosphere, the parallax, and other niceties of modern science.

Astrolabe: We have no direct evidence that Hudson used an astrolabe in *navigating the Half Moon.* In fact, the evidence is against it, for the following reasons: First, we know certainly that Hudson was accustomed to navigate with the cross-staff; second, Captain Davis, in his "Seaman's Secrets" emphatically declared the astrolabe unsuitable for use on shipboard; and third, its use depended upon such delicate adjustment that a sunbeam would pass through two little apertures almost as small as pinholes, and such adjustment was very difficult if not impracticable upon a rolling ship. There is, however, a strong probability that Hudson had an astrolabe on the Half Moon *for use when on land* and possibly for use on board ship in a calm sea. The reasons for this are: First, when suspended immovable, the astrolabe was capable of very accurate observations; second, it was an instrument of common use at that period; and third, we know that Champlain, a contemporaneous voyager, used the astrolabe on his land journeys.

While the astrolabe took an almost infinite variety of forms, we may take Champlain's astrolabe as an illustration of the sim-

plest.[24] It consists first of a circular brass disc $5\frac{5}{8}$ inches in diameter. The circle is divided into quadrants by a vertical and a horizontal line intersecting at the center. Each quadrant is divided into 90°, and each tenth degree is numbered. Attached to and revolving about the center is a double-bladed index called the alidade or dioptera, in length equal to the diameter of the circle. It produces a right line passing through the center of the circle. About midway between the center and each end is an elevated tablet or sight, each containing a fine slit and a very small eyelet about the size of a pinhole. The brass disc is about an eighth of an inch thick at the top and gradually increases to six-sixteenths of an inch at the bottom, making the lower part heavier than the upper. At the top is a suspension ring, attached to the periphery of the disc by a double hinge in the nature of a universal joint. At the bottom is attached a small fixed ring, from which an extra weight could be suspended to make the instrument steadier.

The method of use of this form of astrolabe was very simple. When taking the elevation of the sun, it was held in one hand by the suspension ring and if the sun was bright enough to cast a shadow, the dioptera was revolved until a sunbeam passed through the apertures of both sights. If the sun was not bright enough to cast a shadow but yet was visible, it could be observed by an actual sighting through the apertures of the dioptera. The degrees indicated by the pointer were then read on the limb and the latitude calculated as with the cross-staff.[25]

Quadrant: While it is not probable that Hudson used the quadrant of his day — the astrolabe being more convenient — yet as it was used to a certain extent at that period, and as a quad-

[24] Champlain's astrolabe, lost by him while traversing a portage between the Ottawa river and Muskrat lake June 7, 1613, was found in August, 1867, in Ross township, county of North Renfrew, Province of Quebec, by a farmer while cultivating a field bordering a small lake. The astrolabe is now owned by Mr. Samuel V. Hoffman, president of the New York Historical Society, and forms a part of his remarkable private collection of astrolabes. Focard's "Paraphrase de l'Astrolabe," 1456. Astrolabes were sometimes

[25] The use of the astrolabe is illustrated with numerous engravings in very complex instruments in box form, with movable parts, and engraved with concentric and eccentric circles, tables constructed for various regions and divers latitudes, etc.

rant was represented on the official medal of the Hudson-Fulton Celebration Commission, it may be described briefly. The quadrant of Hudson's day was simply a quarter circle, the arc of which was graduated into 90 degrees. Affixed to one of the straight edges of the quadrant were two sights, perforated to permit the passage of a sunbeam like the sights on the astrolabe. At the corner, representing the center of the circle of which the quadrant was a part, was attached a cord, somewhat longer than the radius of the circle, and at the end of the cord was a plummet. When the quadrant was held so that the sunbeam was parallel with the sights, the plumb line indicated on the graduated arc the elevation of the sun. This was conceded to be an excellent instrument for astronomical observation on land, where it could be held steadily and the plummet allowed to come to rest, but it was not an apt instrument on board ship.

Sea Manual: For his calculations, we know that Hudson must have had a sea manual of some kind, for it was an absolute necessity. There were in current use of that time several books called "Sea Regiments" (sea regimens), containing the "secrets" of the art and mystery of navigation, including tables of the declination of the sun and other data and rules necessary for calculating latitudes, etc. Mr. Frederick Muller of Amsterdam informs the writer that Hudson's instructions for his voyage to the north required that he should have in his equipment the "History of the Navigation of Jean Hugues de Linschot, Hollander, to the East Indies," etc., (1596.) the great manual of Dutch pilots navigating to the East Indies and America. This book contained a very interesting description of parts of Asia, Africa, and America and charts engraved by Plantius and others. It was part of the official equipment of a Dutch vessel at the period of Hudson's voyages in 1609.

Sea Chart: It is hardly necessary to cite Juet's Journal to support the statement that Hudson had on the Half Moon, what was indispensable to the mariner then as now, a chart. "The Crosse-staffe, the Compas and the Chart," says Captain Davis,

"are so necessarily ioyned together as that the one may not well be without the other in ye execution of the practices of Nauigation; for as the Chart sheweth the courses, so doth the Compasse direct the same and the Crosse-staffe by euery particular obserued latitude doth confirme the truth of such courses, and also giueth the certayne distance that the ship hath sayled vpon the same."

The chart was a map, drawn according to the knowledge of the period. It was crossed horizontally by lines representing parallels of latitude at intervals of about 10 degrees, and vertically by lines representing meridians of longitude. The former terminated at the right and left hand margins in graduated meridians. Here and there on the chart were "wind-roses," that is to say, points from each of which 32 rhumb lines radiated to the points of the compass. As these lines extended to the margins, the lines of every wind-rose not only crossed the lines of latitude and longitude but also crossed the rhumb lines of the other wind-roses, producing a network like over-lapping spider-webs. These rhumb lines were used, with the aid of dividers, for determining the course between two points. The pilot by estimate selected the nearest rhumb line which appeared to be parallel with the course between two given points; then, with his dividers, he measured the distance between the first point and the line, and next applied the dividers to the second point and the same line. If the two measurements agreed, then the line selected indicated the direction of his course. If they did not agree, he tried again until he found the right line. In modern navigation this process is greatly simplified by the use of the parallel ruler and protractor.

The chart also contained a scale of leagues; but distances were also estimated by the degrees on the graduated meridian, allowing 20 leagues to a degree.

As we have already said of the maps of the period, the charts were very crude and uncertain, as is indicated by Juet's remark in his Journal on May 28th: "At foure of the clocke wee had sight of the Isles called Farre, and found them to lye out of their place in the Sea Chart fourteen leagues to farre Westerly."

On June 2d, says Juet, "we steered away West Southwest to find Busse Island, discovered in the yeere 1578 by one of the ships of Sir Martin Frobisher, to see if it lay in her true latitude in the Chart or no." It probably was not in her true latitude, for Hudson couldn't find it.

Latitudes of the Half Moon: The latitudes of the Half Moon were usually calculated from observations of the sun. Sometimes, however, they were based on observations of the north star, as at midnight June 14th. At midnight July 5th, the observation was made "by the north starre and the Scorpion's heart."

In collating with Juet's Journal the accounts of Van Meteren and De Laet who appear to have access to Hudson's own log book, we cannot escape the conviction that observations were made by both Juet and Hudson, and that Hudson was the better navigator of the two. In the footnotes 32 to 58 following will be found some latitudes which do not appear in Juet's Journal, and others which, apparently referring to the places in Juet's Journal with which they are collated, are more accurate than Juet's. In the following comments, therefore, we have taken care to discriminate between what appear to be Juet's and what appears to be Hudson's calculations.

It is difficult to ascertain how accurate the Half Moon's latitudes were, for the records make few references to precise landmarks which can be compared with their latitudes as known at present. At noon, May 5th, when Juet observed the sun, he calculated his latitude to be 71° 46′ with the North cape of Norway bearing southwest by south and estimated to be 10 leagues distant. The estimate of distance was, of course, guess work and liable to error. Assuming it to have been correct, however, and making allowance for the declination of the compass, his latitude could have been only about 71° 33′, the North cape being in 71° 10′. His error in this case was about 13 minutes or about 15 miles of latitude. Under date of August 6th, Juet says that he found Cape Cod in 40° 10′, but De Laet says that Hudson "made land in latitude 41° 43′ which he supposed to be an island * * *

but afterwards discovered that it was Cape Cod, and that, according to his observation, it lay 225 miles to the west of its place on all the charts." (See footnote 41.) "Cape Cod" is a very indefinite term, extending from about 41° 37′ to about 42° 5′, and the parallel of 41° 43′ crosses the cape; but as we do not know to what part of the cape Hudson refers, we cannot check up his observation very closely. On August 18th, says Juet, they found the northern side of the entrance of Chesapeake bay to lie in 37° 26′. But De Laet, with Hudson's own notes before him, appears to locate it in 37° 15′. Again we do not know what precise point, or possibly island, Juet and Hudson had in view — if the extremity of Cape Charles, which is in 37° 3′, Juet was 23′ out of the way and Hudson only 12′. (See footnote 43.) On August 28th, according to De Laet, Hudson found Cape May in 38° 54′. This is within 1½′ of being correct, Cape May being in 38° 55½′. (See footnote 45.) On September 3d, when the Half Moon was at or near the entrance to the lower bay of New York, Juet calculated his latitude to be 40° 30′. As 40° 30′ is precisely in the middle of the entrance to the lower harbor, he either made a remarkably accurate observation, or — what we suspect to have been the case — the ship lay a few minutes to the southward. De Laet, apparently referring to Hudson's entering of the lower bay, says that "they ran up into a roadstead near a low sandy point in latitude 40° 18′. If he refers to Sandy Hook, the lowest latitude in which he could have anchored behind that point would have been about 40° 25′. (See footnote 47.) On September 12th, says Van Meteren, speaking from Hudson's notes, they found a good entrance between two headlands in 40° 45′ and so entered the river. (See footnote 50.) The Narrows, to which he probably refers, are in 40° 37′. The journals of Hudson's other three recorded voyages give us some further clues to his accuracy. For instance, in his voyage of 1610, he saw the Faroe islands in 62° 24′ which is the exact latitude of their northern portion. Our opinion is that *on the average,* the calculated latitudes of the Half Moon were fairly

well within the average accuracy of the period, that is to say, the errors did not exceed 15 minutes on the average and were oftentimes much smaller. Hudson, we have seen, was able to calculate within 1½ minutes of true latitude.

Soundings: Juet's Journal plainly indicates that the Half Moon used the two kinds of sounding lines described in Captain Smith's "Sea Grammar," namely, the Dipsie Line and the Sounding Line. The *Dipsie Line,* used in deep water when approaching land, was 150 fathoms or more long with a long hollow plummet open at the lower end. This plummet was filled with tallow in order that the sand, gravel, and shells lying on the sea-bottom might adhere to it and thus give the pilot knowledge of its character. For instance, on July 2d, the Half Moon was sailing over a bottom covered with "white sand and shells." On July 3d, the bottom was "gray sand," On July 7th, "white sand," on July 8th, "red stones and shells," on July 31st, "sometimes little stones," on August 3d, "sometimes oze," etc. From the depth of the water, indicated by fathom marks on the line, and the character of the sea-bottom, the skillful pilot could form a very fair judgment of his whereabouts. This practice is continued to-day, with a more convenient instrument, and the character of the sea-bottom is indicated in modern sea-charts for the aid of navigators. The *Sounding Line* was larger than the Dipsie Line and was used in shallower water. It was marked at 2 fathoms with a piece of black leather, at 3 fathoms with black leather slit, at 5 with a piece of white cloth, at 7 with a piece of red in a piece of white leather, at 15 with white cloth, etc. The lead was nearly a foot long and weighed six or seven pounds. "He that doth heave this lead," says Captain Smith, "stands by the horse, or in the chaines, and doth sing fadome by the marke 5. 0. and a shaftement lesse, 4. 0." etc. Soundings were not always made from the ship itself. Sometimes the small boat was sent out to explore the neighboring depths. On August 6, 1609, Hudson sent the small boat out at night as far from the ship as they could see a light to sound. When the Half Moon reached the head of ship navigation on the Hudson river, the small boat was sent upstream to test the possibilities farther north.

Log Line: We do not know certainly how Hudson calculated the speed of his ship and the length of his courses. The log line and *minute glass* were the traditional means, but their use was not universal. Captain Smith says: "Some use a Log line and a minute glass to know what way shee makes, but that is so uncertaine it is not worth the labour to trie it." The day's run was reckoned from noon to noon when the sun was observed as at present. (See Juet's Journal, August 22d.) The latitude thus served as a correction of the estimated run, and not infrequently Hudson found that he had overestimated or underestimated his day's run. (See page 288, post.) These errors were probably not due solely to the influence of sea-currents, but also to the unreliability of log measurements and guess-work. In fact, it is a well-accepted canon of those who study early navigations critically that distances and names in the early relations and maps are to be taken with great caution, while directions may be accepted with much confidence.

Glasses: The almost daily use of the word "glass" in Juet's Journal shows that time was measured on the Half Moon by the sand-glass. "We stood along one glass," "we stood three glasses," "we sounded every glass," etc., says the Journal. There were clocks in Hudson's day, for Heriot, in his description of Virginia (1587), speaks of the surprise of the Indians at the "spring-clockes that seeme to goe of themselves," but there is no indication that Hudson had one on the Half Moon. The glass used on shipboard was not an hour-glass but a half-hour glass. Every time the pilot turned the glass he rang the ship's bell which hung within his reach in the steerage, giving rise to the old sailor's phrase: "Turn the glass and ring the bell." Eight turnings of the glass, or eight bells, constituted *a watch*. The watches on the Half Moon ended at 4, 8 and 12 o'clock as at present.

Miscellaneous Instruments: Hudson may have had several other instruments of navigation which we have not mentioned and of which there is no specific evidence. He undoubtedly had one or more pairs of dividers and a straight-edge. Possibly he had one

or more proportional rulers. And it is quite likely he had a globe with various movable adjustments, and a sun-dial.

Traverse Book: The net product of the use of all these navigating instruments was summed up in the Traverse Book. Hudson's contract with the Dutch East India Company required that upon his return he should turn over to the company "his journals, courses, charts," etc. What has become of Hudson's own Traverse Book (or Log Book) and Journal we do not know. It would be a very interesting document if it could be found, and would doubtless supply details additional to those in Juet's Journal. In the absence of the Traverse Book, however, we can describe it from similar records of the period. The first column indicated the month and day; the second column the number of hours run on a given course; third column the direction of the course; fourth, the distance traveled in leagues; fifth and sixth, the "elevation of the pole" or latitude in degrees and minutes; seventh, the direction of the wind; and eighth "the discourse" or particulars of the day's experience.

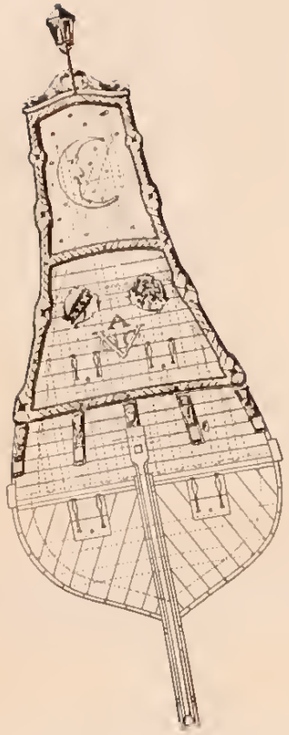
Nautical Terms: Juet's Journal contains several expressions, some obsolete and some unfamiliar to the landsman, about which a few words of explanation may be offered. We have already explained the meaning of the word *glass* which is used daily. In stormy weather the Half Moon was frequently forced *to lay a try*, or *to trie* with her mainsail, with which she "tryed away west, north-west" or "tried away south," (June 5th, 16th, 23d, 24th, etc.). Capt. John Smith defines this term in the following words: "A storm; let us lie at trie with our maine course, that is, to hale (haul) the tacks aboord, the sheat close aft, the boling set up, and the helm tied close aboord." If the storm is so great that the ship can bear no sail at all then she lies *a hull*. On August 14th, for instance, the Half Moon "layd it a hull" and "hulled away." Captain Smith says that if the storm is so great that the ship cannot trie, "then hull, which is to beare no saile; but to strike a hull is when they would lie obscurely in the sea, or stay for some consort; lash sure the helme a lee, and so a good ship

will lie at ease under the sea as wee terme it. . . . They call it hulling also in a calme swelling sea, which is commonly before a storme, when they strike their sailes lest she should beat them in peeces against the mast by rowling" (rolling). *Scant* was applied as an adjective and verb to the wind to signify that it was less favorable than desired or blew from such a direction that the ship could not continue on her desired course even when close hauled. "The wind was so scant" on May 19th that the Half Moon could not work around the North cape. An example of the use of the word as a verb may be cited from the Journal of Hudson's first voyage (July 25, 1607): "Then the wind scanted; we cast about and lay southwest and by west 2 leagues and a halfe till noon. Then it began to overcast and the wind to scant againe; we cast about. . . . Then the wind scanted again. . . . Now, seeing how contrarie the winde proved," etc. *To short* appears to have been synonymous with to scant; for on August 11, 1609, when the Half Moon was sailing west southwest, "the wind shorted," so that she could lie but southwest and by south. *To loofe* was to luff in modern language. On September 2d, the Half Moon "looft in for the shore," that is, she sailed close to the wind, which was from the northwest, so as to approach the shore. *To borrow* was to keep near, or to hug as we would say to-day. On September 17th, the Half Moon "borrowed on the banke in the channel" of the Hudson river and went aground. On October 4th, in leaving New York harbor, she tried to find a better channel by "borrowing upon the norther side." *To weigh,* of course, meant to raise the anchor. The same term is used now. On July 30th and August 1st Juet speaks of "many *overfalls.*" We find a partial definition of this word in Hugh Smith's account of the discovery by Pet and Jackman beyond the Vaigats when he speaks of "overfals of water or tides." But the word also contains the idea of tumbling water or "whitecaps" as we would say to-day. The "Furious Overfall" of Capt. John Davis in Davis' straits was a furious foaming tide. *Streames* were currents, whether in rivers or at sea. The "strong streame" of July 31, 1609, the "very strong streame" of August 3d, "the streame" of August 6th,

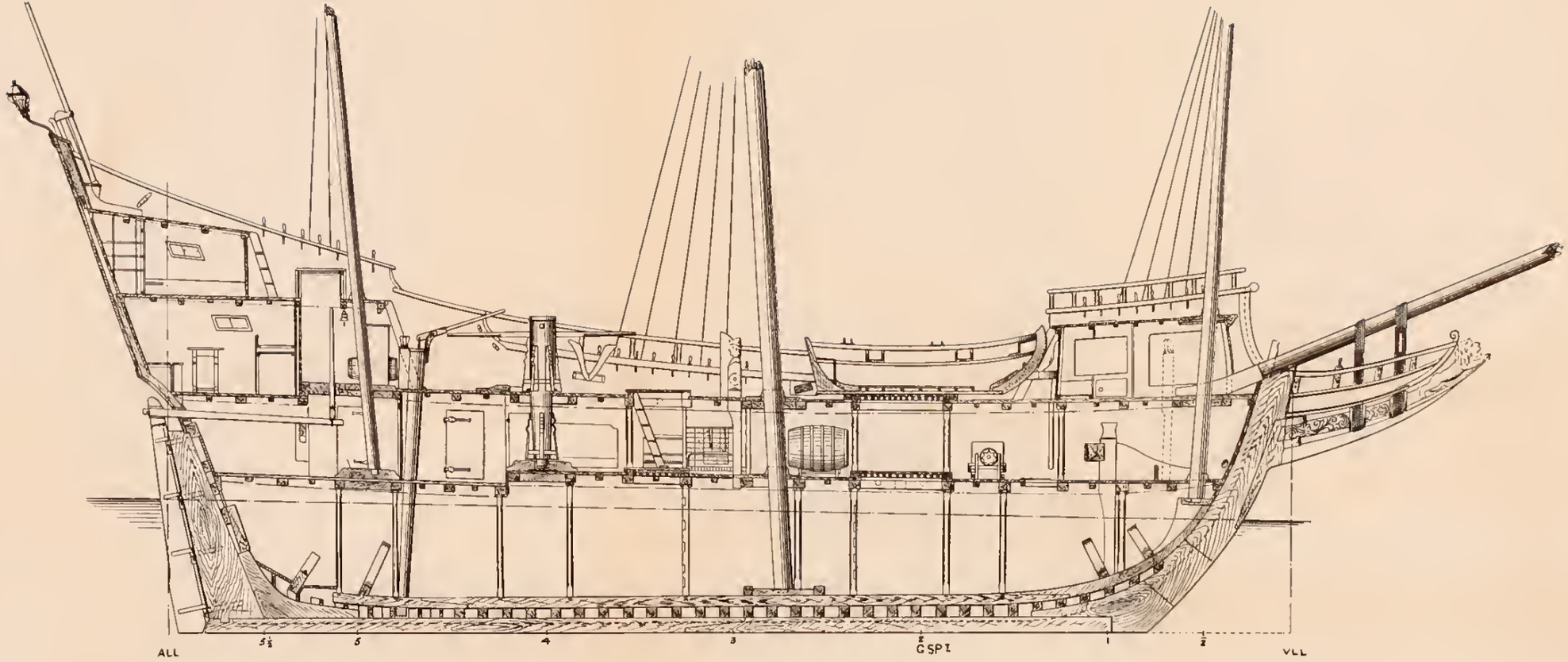
which "did hurl so," etc., were powerful sea-currents. A *riffe* was a reef or shoal (August 5th and 6th) than which the mariner feared nothing more. The waves breaking on a shoal or shore made "*breaches,*" or breakers in modern language. On August 7th Hudson saw "great breaches" which he discreetly avoided. The noise of the sea breaking on a shore or rustling over a reef was called a *rut* (July 31st). On May 30th, some of the crew went ashore to *romage,* that is, to hunt for food. On May 19th, Juet records that *the ship had out-run us* twenty leagues. This means that when he came to observe the sun and calculate his latitude, he found that the ship, on account of the current, had traveled twenty leagues farther than he had estimated by guesswork or the log. The same is meant when he says "the ship had gone to the westward of our course" (June 5th) and "our ship gone to the southward of our account ten leagues" (June 11th). On the other hand, "I was *before the ship* 16 leagues" (June 3d) has just the opposite meaning, namely, that while sailing southwestward, a current from the southwest made the ship fall short of the estimated distance. In Juet's Journal, under date of September 1st, he says, "we . . . went sixe leagues *neere hand* north-northwest." In Hudson's Journals of 1607 and 1608 the expressions "near hand" and "nearest hand" occur frequently in such passages as "we saw the land trending neere hand east-northeast" and "we accounted by our obseruation the part of the mayne Land lay neerest hand in 73 degrees" (June 22, 1607). "Near hand" is equivalent to "approximately;" and "nearest hand" means as near as he could estimate. But the term which, perhaps, has given rise to the greatest misunderstanding of all those in Juet's Journal is the word *slake,* to which we devote the following paragraph.

Sun-Spots and Slakes: On May 19th, Juet records: "We made our way west and by north till noone. Then we observed the sunne, having a slake, and found our heighth to bee 70 degrees 30 minutes." John Fiske and other writers have inferred that this passage records the observation of a sun-spot. Referring to it, Fiske says: "Hudson made the first recorded observation of a sun-spot. It was a year and a half later that sun-spots were ob-

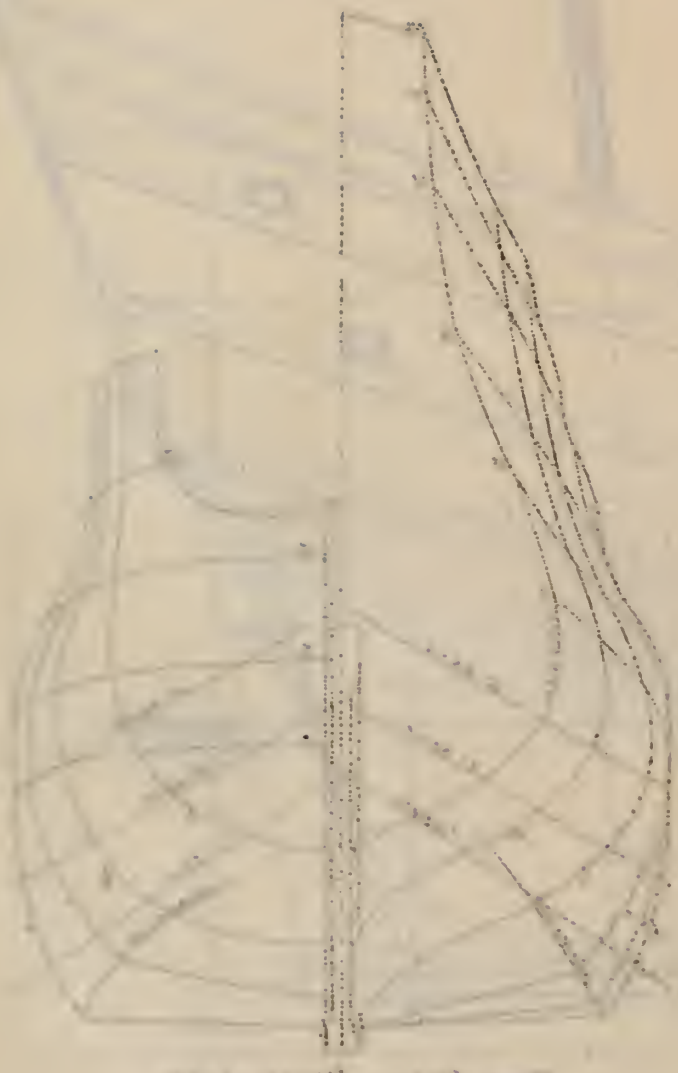
THE HALF MOON. PLAN OF RIGGING. SCALE, 1:80.

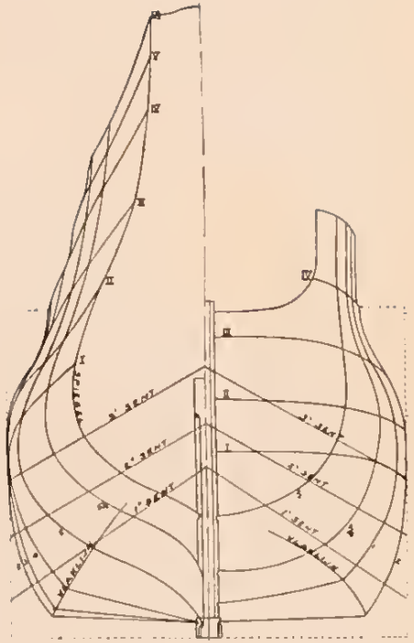


Plan of Structure of Stern

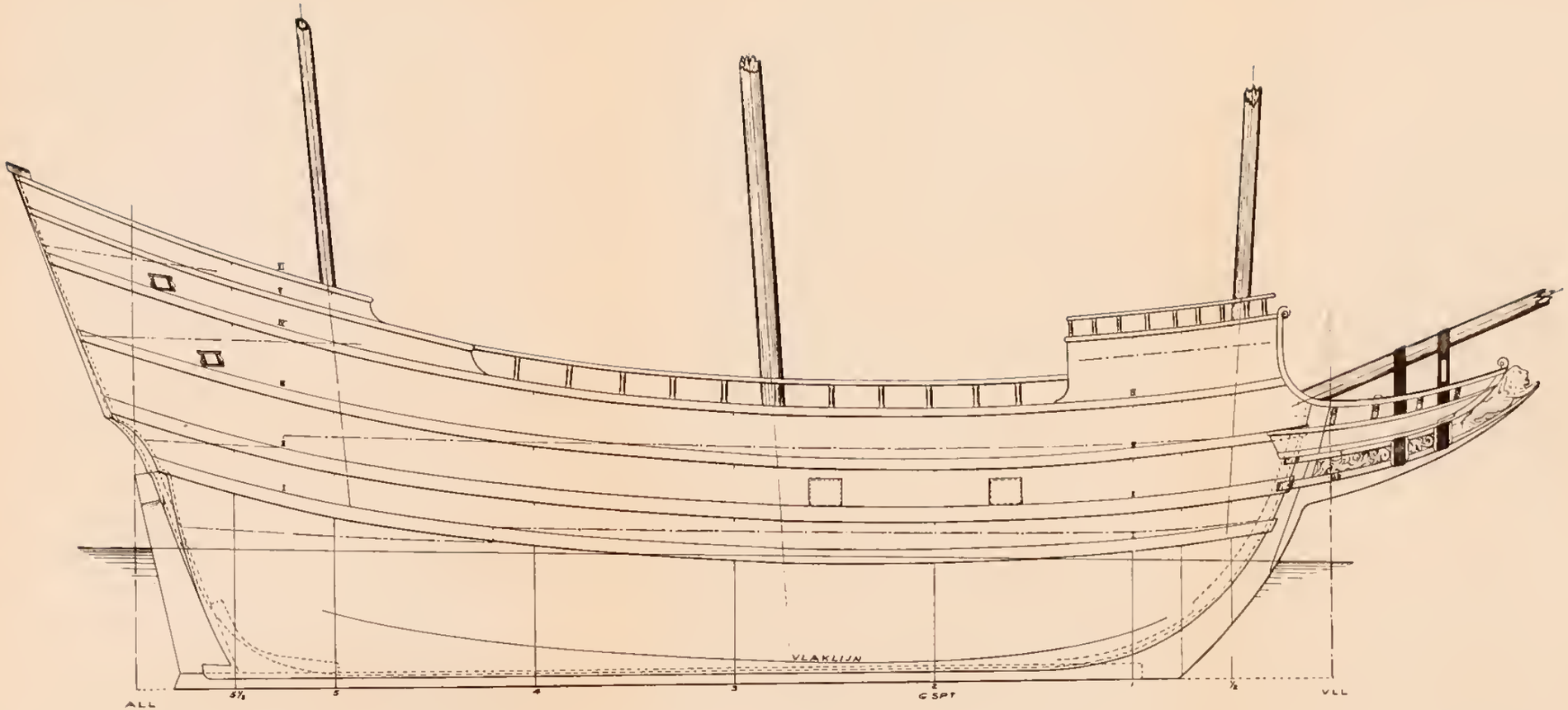


The Half Moon. Longitudinal Section. Scale, 1:80

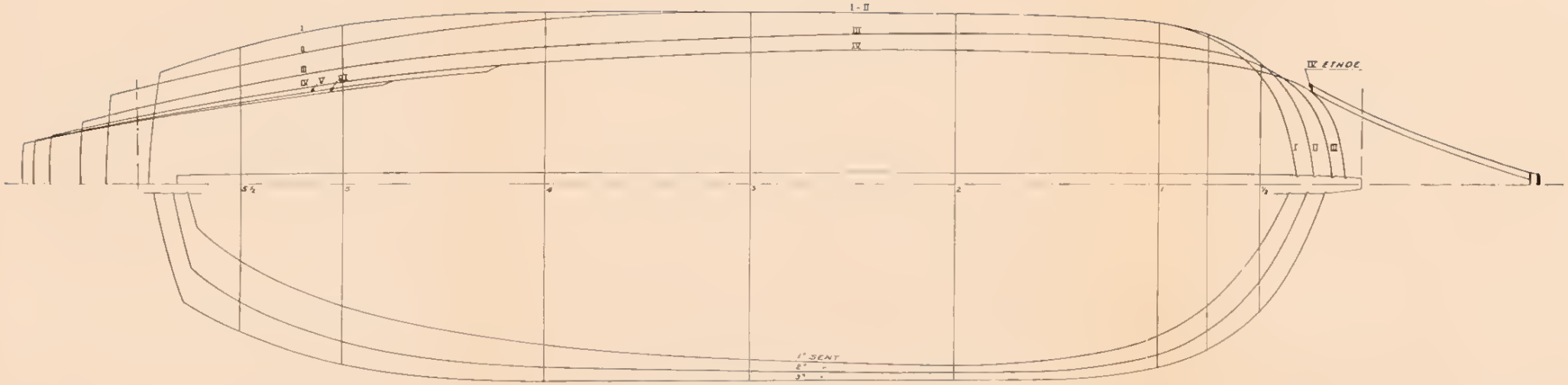




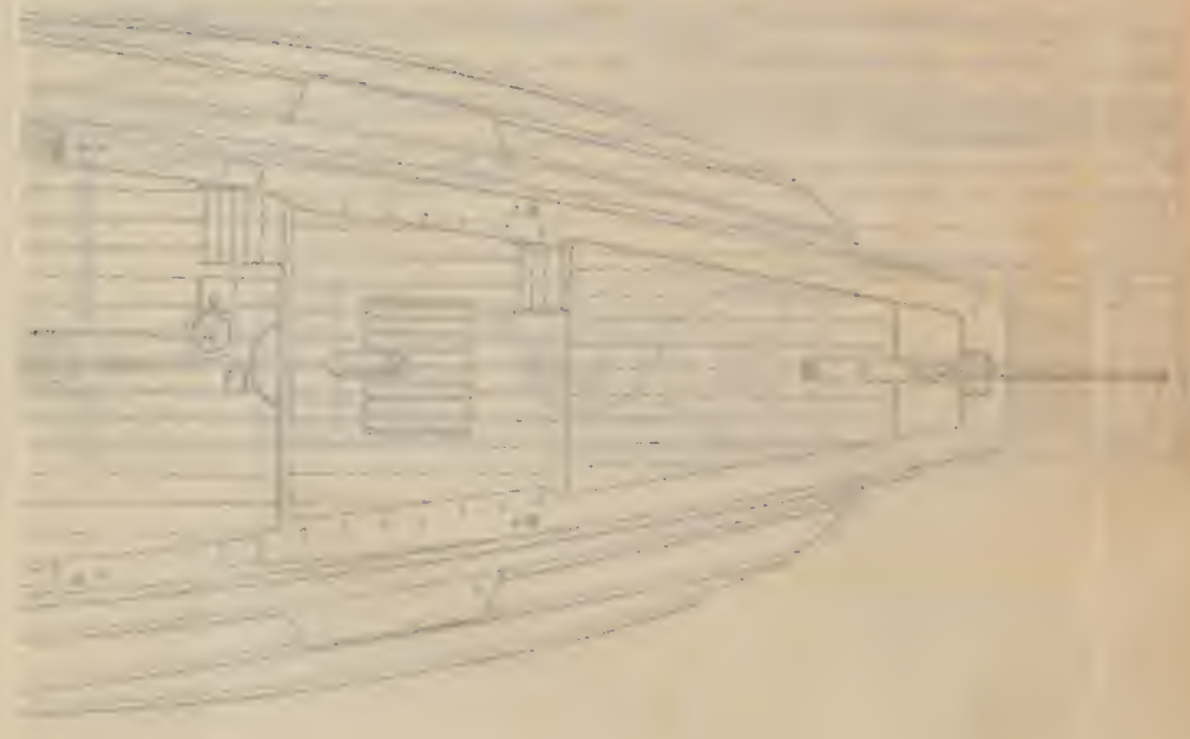
Body Plan. Scale, 1:80

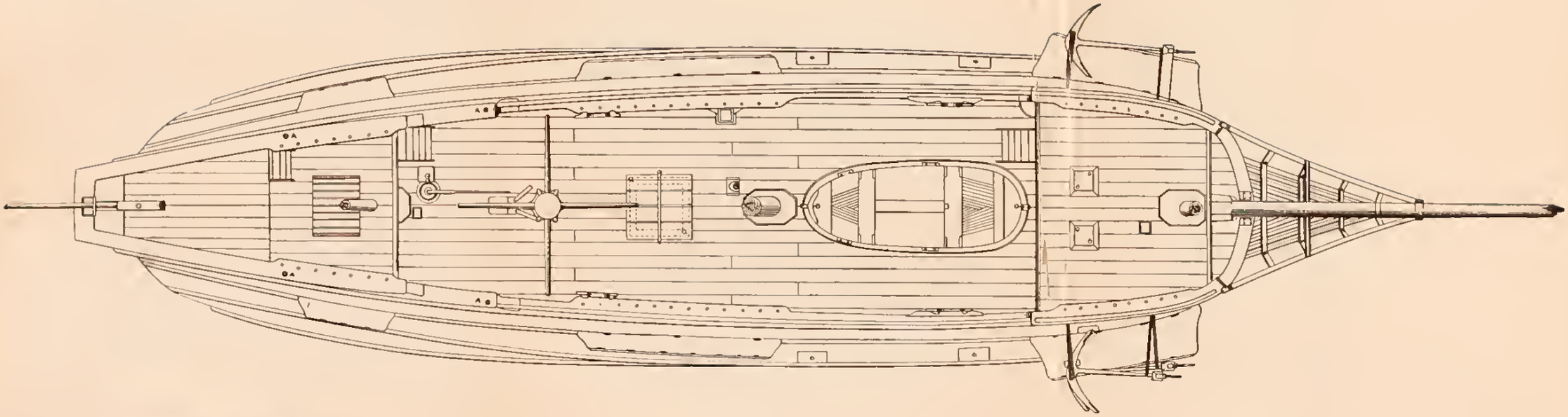


The Half Moon. Sheer Plan. Scale, 1:80

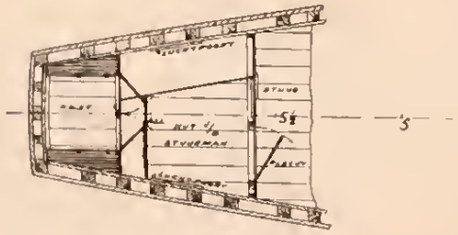


The Half Moon. Half-breadth Plan. Scale, 1:80

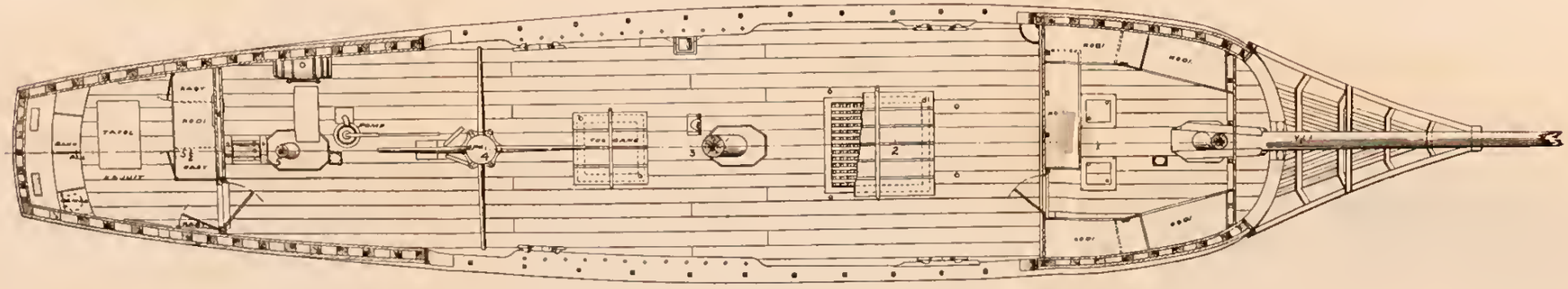




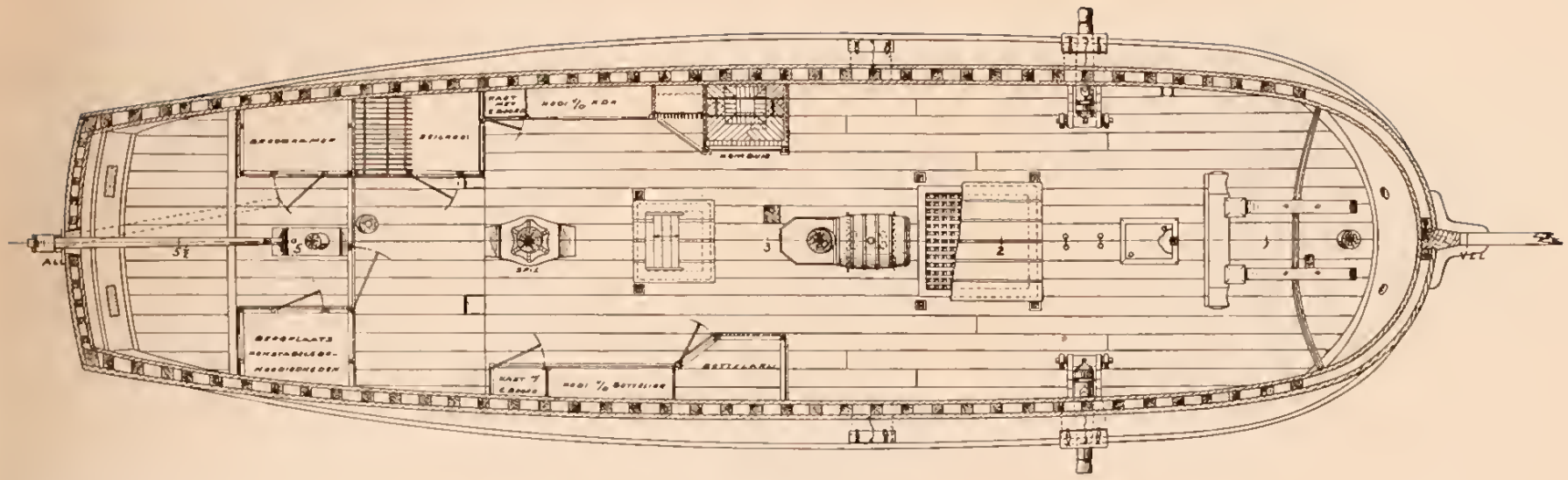
Top-view Plan. Scale, 1:80



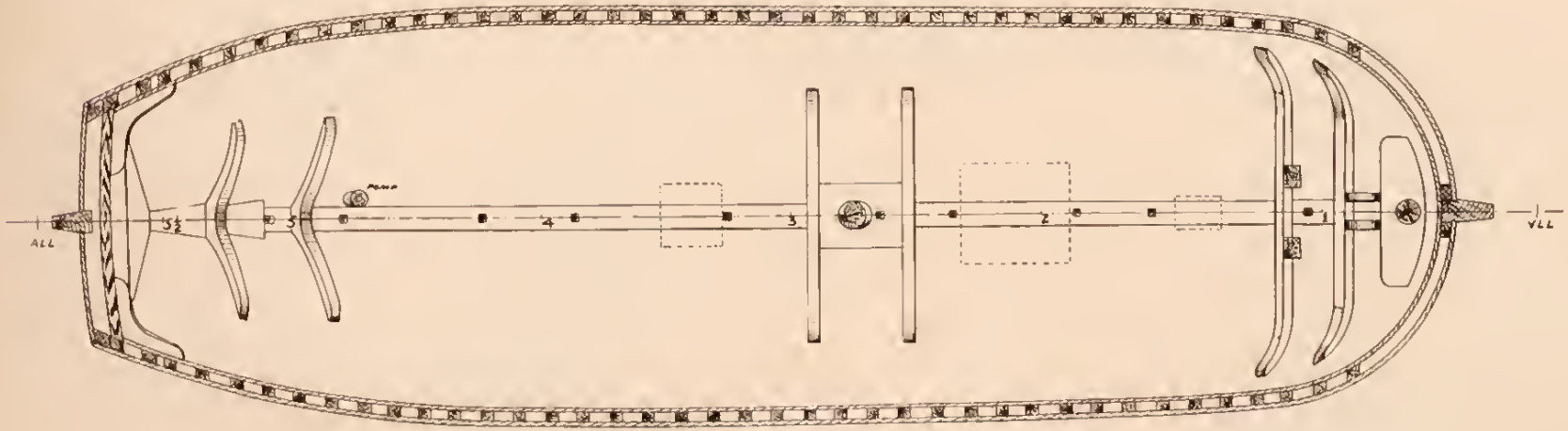
Poop Deck. Scale, 1:80



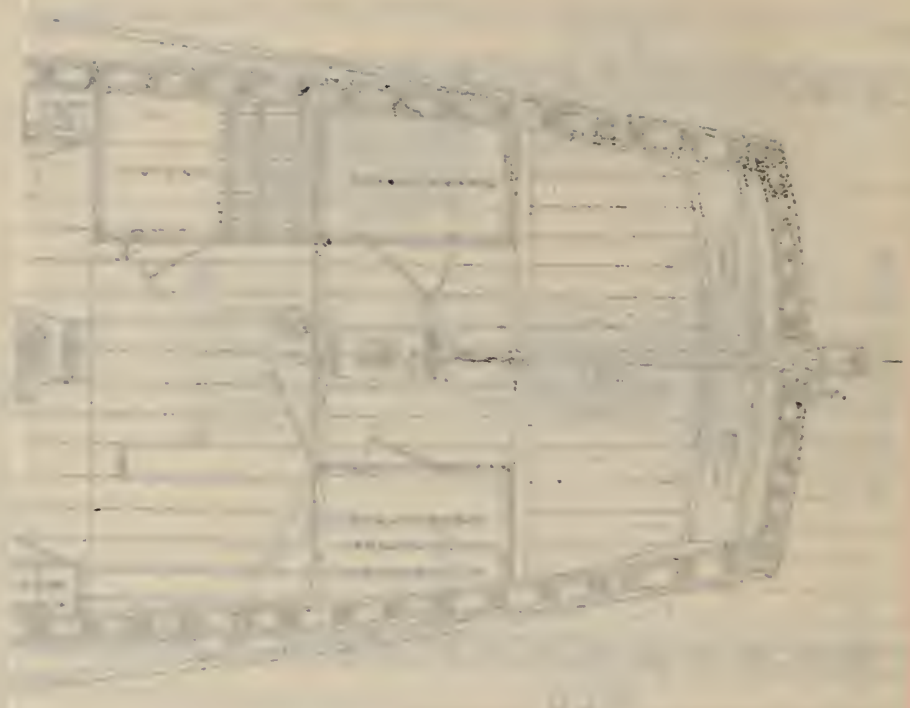
The Half Moon. Plan of Upper Deck. Scale, 1:80

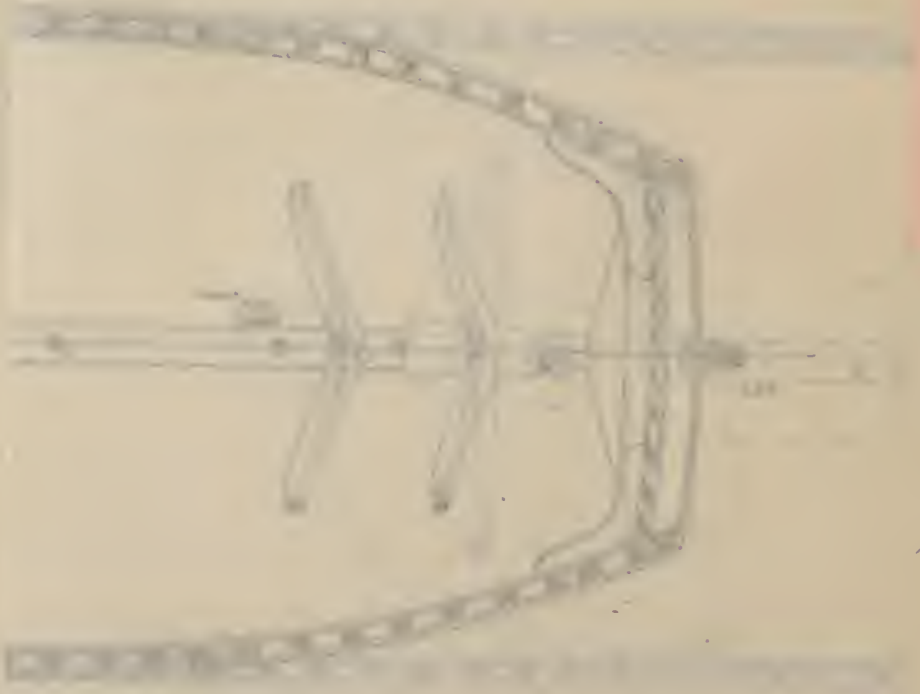


Plan of 'Tween-deck. Scale, 1:80



The Half Moon. Plan of Hold. Scale, 1:80





served by Hariot and again by Galileo, to the holy indignation of good Aristotelians who deemed it flat blasphemy to say that the Eye of the Universe could suffer from ophthalmia." As a matter of fact, Hudson did not observe a sun-spot; and if he had, he would not have been the first to make such an observation. In December, 1590, Master James Welsh, in command of the ship Richard of Arundell, en route from London to Benin, records: "The 7. at the going down of the sunne we saw a great black spot in the sunne; and the 8 day both at rising and setting we saw the like, which spot to our seeming was about the bigness of a shilling." On the night of the 16th they "saw another spot in the sunne at his going down." From the foregoing it is apparent that sun-spots were observed before 1609, and furthermore that they were called "spots." The next question, then, is what is the "slake" to which Juet's Journal refers, and we find the answer by reading the nautical instructions and journals of other voyagers of that period. In 1580, William Burrough wrote some "Instructions and notes very necessary and needful to be observed in the purposed voyage for discovery of Cathay eastwards by Arthur Pet and Charles Jackman," in which he says: "When you come upon any coast where you find floods and ebbs, do you diligently note the time of the highest and lowest water in every place, and *the slake or still water of full sea and lowe water,*" etc. In a still earlier record of a voyage by Stephen Burrough in 1557, it says that "when the *slake* came," they weighed anchor and went toward the shore. In other words, this passage in Juet's Journal simply means that at noon time, when Hudson, as usual, observed the sun to get his latitude, he had slack water. In another part of the same Journal (August 8th) Juet says: "In the morning, by sixe of the clocke at *slake* water, we weighed," which is only a variation of the expression of May 19th.

CHAPTER IX.

The Half Moon's Voyage.

Records: Our knowledge of the details of Hudson's voyage is derived from three sources — first and chiefly from the Journal

kept by Robert Juet; second from Van Meteren's "Historie der Nederlanden" (The Hague, 1614), and third from John De Laet's "Nieuwe Werelt" (Amsterdam, 1625, 1640). Both Van Meteren and De Laet appear to have had access to Hudson's own log. For the details of the voyage, the reader is referred to Juet's Journal given on page 308 et seq. Our present purpose is to explain certain features of the records and, by bringing collateral information to bear upon them, make them, if possible, more readily understood.

Calendar: Hudson set sail from Amsterdam on Saturday, March 25, 1609, according to the old style of reckoning, which would be Saturday, April 4th, in the new style. Juet's Journal is begun in the Old Style, but on May 5th changes to the new style. The Netherlands were one of the earliest countries to adopt the revised calendar which, according to a decree of Pope Gregory XIII, went into effect October 4, 1582, and which dropped ten days to rectify accumulated errors. England, however, adhered to the old style until it was changed by act of Parliament in 1752, when it was necessary to drop eleven days. The journals of Hudson's first, second, and fourth voyages under English auspices were, therefore, kept in the old style of reckoning. Probably from force of habit, Juet's Journal of the third voyage was begun in the old style, opening with this statement: "On Saturday, the five and twentieth of March, 1609, after the old Account, we set sayle from Amsterdam." En route to the North cape he evidently remembered that he was sailing under Dutch auspices and on Tuesday, May 5th, he adopted the new style, which he continued to the end of the Journal. The dates in the Journal beginning with May 5th may, therefore, be compared with the following:

Calendar for 1609, *N. S.*

January.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April.

Sun.	Mon	Tue.	Wed.	Thu.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

June.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	23	25
26	27	28	29	30	31	

August.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

September.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

October.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

November.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

December.

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

The Voyage Begun: We may be sure that from the Weeper's Tower in Amsterdam, which, like many other landmarks of Hud-

son's time[23] still stands, anxious eyes watched the departure of the little Half Moon. Two days later the vessel had reached the island of Texel and passed out of the Zuider Zee (the Southern sea) into the North sea. Juet gives no details of the voyage during the first month along the coast of Norway, "because it is a journey usually known." By the 5th of May the Half Moon had reached the North cape, having averaged about fifty miles a day.

Westward Ho! Of Hudson's whereabouts from May 5th to May 19th, Juet leaves us in doubt. On May 5th he tells us that the Half Moon passed the North cape of Norway and turned eastward. On the 19th, with the brief phrase "after much trouble with fogges sometimes and more dangerous of Ice," the vessel reappears eastward of the cape and about forty minutes southward of its latitude, trying to work around to the westward of it again. Fortunately, Van Meteren, with Hudson's own Journal in his possession, tells us what Juet omits. He says: "This Henry Hudson... having doubled the Cape of Norway the 5th of May, directed his course along the northern coasts toward Nova Zembla; but he there found the sea as full of ice as he had found it in the preceding year, so that he lost hope of effecting anything during the season. This circumstance, and the cold which some of his men who had been in the East Indies could not bear, caused quarrels among the crew,— they being partly English and partly Dutch; upon which the Captain, Henry Hudson, laid before them two propositions. The first of these was to go to the coast of America to the latitude of 40°. This idea had been suggested to him by some letters and maps which his friend Captain Smith had sent him from Virginia (see page 238) and by which he had informed him that there was a sea leading into the western ocean by the north of the southern English colony. Had this information been true (experience goes as yet to the contrary) it would have been of great advantage, as indicating a short way to India.

[23] Besides the Weeper's Tower, erected in 1482, one may see Montalbaans Tower, a relic of Spanish days; St. Anthony's weighhouse (1488–1585) now occupied by the Municipal Archives; the Old Church built about 1300 and the New Church built about 1408. It sounds strange to American ears to hear a church, which was erected eight-four years before Columbus discovered America, called the Nieuwe Kerk!

The other proposition was to direct their search to Davis' Straits." Although Van Meteren mentions the Davis' strait idea second, Hudson had entertained it before he received Smith's suggestion of the New York route, for Hudson says in his Journal of 1608: "Being at Nova Zembla the sixth of July, voide of hope of a northeast passage. . . I therefore resolved to use all meanes I could to sayle to the northwest. . . and to make triall of that place called Lumley's Inlet and the Furious Overfall by Captayne Davis." Hudson did not try Davis' strait in 1608 because the season was more than half gone and it was too late.[27] Renewing the proposition in 1609, earlier in the season, together with Captain Smith's suggestion, and influenced doubtless by the considerations mentioned on pages 238–240 *ante*, the crew agreed to a trial of the more southern route and on May 14th the Half Moon turned her prow westward.

The Midnight Sun: Between the departure of the Half Moon from the North cape, May 5th, and her return to that neighborhood, May 19th, the "midnight sun" had risen above the northern horizon and in the continuous daylight which enveloped her for several days the candles, which at night illuminated the compass in the binnacle, were extinguished. On May 19th, the Half Moon was in latitude 70° 30′. In latitude 70°, the midnight sun appears upon the northern horizon May 16th at 3 a. m.[28] Hudson passed south of the Arctic circle on May 26–27th, but on account of the long twilight was not obliged to relight the candles in his binnacle until June 1st. On the next night, June 2d, the stars reappeared. Of course, during the period of the midnight sun, no observations for latitude could be taken from the stars.

Weather: Covering a range of 35° of latitude, from Nova Zembla to the capes of Virginia, the Half Moon experienced

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[27] Hudson has been criticised by some writers for his alleged disobedience of orders in 1609 in not returning to Amsterdam after his repulse by the ice of Nova Zembla, but starting off westward on his own responsibility. The open record of his previous voyage for his English employers above quoted indicates that he contemplated precisely the same thing for them and that such a diversion made with a view to the ultimate profit of his employers, was considered entirely legitimate. Having failed to find the northeast passage in 1609, Hudson wanted to "make good" with his employers by finding one to the westward. He "made good" in an entirely unexpected manner.

[28] Prof. John N. Stockwell in the New York Times, Dec. 5, 1909.

meteorological phenomena ranging from the freezing blasts of the Arctic ocean to the "very hot" weather of our middle Atlantic shore mid-summer -- ice, snow, hail, rain, thunder, lightning, fog, hurricane, calm, and "fair shining weather." It was certainly a sturdy little craft skillfully navigated, which could live through all those vicissitudes with only the loss of her foremast (June 15th), the splitting of her foresail (June 21st), the smashing of her shallop (August 9th) and the splitting of her forecourse again by a great wave (August 21st).

America: Hudson reached the American coast July 12th, and on July 18th anchored in a harbor on the coast of Maine. There he remained long enough to make a new foremast from the pine trees that fringed the shore. Then, his unruly crew having driven the natives from their homes with firearms and plundered them, Hudson resumed his voyage southward. After touching at Cape Cod, he proceeded to a point about 100 miles south of Chesapeake bay, then turned about, coasted northward, and entered the Delaware bay. Finding this shallow stream unnavigable he continued up the coast until the daylight of Wednesday, September 2d, disclosed the low, sandy beaches of the northern New Jersey shore, looking like "Broken islands." At 5 o'clock he anchored in sight of the high promontory believed to be the Navesink Highlands on the south side of New York bay. "This is a very good land to fall with and a pleasant land to see," says Juet at the end of his Journal for that day.

Tide Table for Hudson River: The author hopes to be able at some future time to make a critical analysis of the data of Hudson's voyage in September, 1609, with a view to determining the places of his anchorages in the Hudson river; and for purposes of comparison with Juet's Journal, the following table, showing the local mean times of high tide at Governor's island, New York, in September, 1609, new style, has been prepared for the writer under date of October 13, 1909, through the kindness of the Hydrographic office of the Navy Department, of which Com-

mander A. H. Scales, U. S. N., is Acting Hydrographer. The table is here presented as a matter of record for future reference:

LOCAL MEAN TIMES OF HIGH TIDE AT GOVERNOR'S ISLAND, NEW YORK.

Date (new style) 1609.		Time of a. m. high tide.		Time of p. m. high tide.	
		H.	M.	H.	M.
Sept.	2	10	56	11	17
	3	11	38	11	59
	4	..	..	12	21
	5	0	42	1	03
	6	1	27	1	50
	7	2	15	2	40
	8	3	05	3	32
	9	3	57	4	25
	10	4	50	5	19
	11	5	44	6	13
	12	6	38	7	07
	13	7	32	8	01
	14	8	26	8	54
	15	9	20	9	47
	16	10	13	10	41
	17	11	07	11	35
	18	..	..	12	02
	19	0	30	12	59
	20	1	27	1	56
	21	2	24	2	53
	22	3	20	3	49
	23	4	14	4	43
	24	5	05	5	34
	25	5	53	6	22
	26	6	40	7	05
	27	7	27	7	49
	28	8	10	8	32
	29	8	52	9	14
	30	9	34	9	56
Oct.	1	10	17	10	39
	2	11	01	11	23
	3	11	47	..	..
	4	0	09	12	32

From the table of tidal constants furnished by the United States Coast and Geodetic Survey office to the Nautical Almanac, the difference between the time of high tide at Governor's island and at certain points on the Hudson river, with the mean range of tide, is found to be as follows:

High Water Later than Governor's Island	H. M.	Mean Range of Tide.
At Brooklyn Navy Yard	0.37	4.4 feet
Sing Sing	1.46	3.3 feet
West Point	2.47	3.3 feet
Poughkeepsie	3.51	3.2 feet
Rondout	4.36	3.3 feet
Albany	9.30	2.3 feet

Hudson in the Hudson River: As New York bay is regarded as the mouth of the Hudson river, September 2d is the commonly accepted date of Hudson's first personal acquaintance with the stream which bears his name. On Thursday, the 3d, the Half Moon found good anchorage on the south side of the bay, believed to be inside of Sandy Hook. A week was spent in exploring the adjacent waters with the small boat, during which time the Half Moon appears to have been in the lower harbor. In this search, "they found a good entrance between two headlands," (probably the Narrows) "and thus entered on the 12th of September into as fine a river as can be found." They ascended the river as wind and tide served, always anchoring at night. On Monday, the 14th, they "came to a streight between two points," (thought to be the narrow place between Stony and Verplanck's Points) and that day entered the "very high and mountainous" region of the Highlands. On the 15th they "came to other mountains which lie from the river's side," an apt description of the Catskills. By Saturday, September 19th, the Half Moon had reached her "farthest north," which, according to Van Meteren, was in latitude 42° 40′. If this latitude be correct, Hudson's northernmost anchorage was opposite the site of the northern end of the city of Albany. From this point Hudson sent the small boat to explore still farther in the hope of finding deeper water be-

yond, but in this he was disappointed. Convinced that this was not the much desired route to the Pacific,[29] he weighed anchor at noon on Wednesday, the 23d, and started down stream. By Tuesday the 29th, they had reached "the edge of the mountaines, or the northermost of the mountaines" (apparently the north gate of the Highlands) where a stiff southeast gale between the mountains detained them at anchor till Thursday, October 1st. On the latter day they "got down below the mountaines" apparently to the vicinity of Stony and Verplanck's Points. On Friday, the 2d, the Half Moon anchored near "a cliffe that looked of the colour of a white greene." This cliff is one of the most accurately located landmarks in Hudson's river voyage, being without doubt the green serpentine outcrop at Castle point, Hoboken.

Hudson had now been in the Hudson valley just a month, and was delighted with it. He found the country full of great and magnificent oaks, of a size seldom seen, and an abundance of poplars, lindens, and other trees usful in shipbuilding. He also found blue plum trees. The lands were as pleasant with grass and flowers and goodly trees as ever they had seen and very sweet smells came from them. To use Hudson's own words: "It is as pleasant a land as one need tread upon. The land is the finest for cultivation that I ever in my life set foot upon."

On almost every day of Hudson's sojourn in this delightful region, the Indians visited the ship, either in friendship or hostility. They came in canoes, hollowed out of single logs, some of which were capable of holding as many as fourteen persons. They were dressed in mantles of feathers, deer skins, fox skins, and other good furs, smoked great red or yellow copper tobacco pipes, wore copper ornaments on their necks, and carried bows and arrows pointed with sharp stones. They brought with them green

[29] After it was found that the continents of North and South America blockaded the western route to China, the efforts of the early explorers were directed toward the discovery of a passage *through* North America to the western sea. A singular record of this fact is found in the name of the famous Lachine rapids. Lachine (or La Chine, as originally written) is the French name for China, and was given in derision to a seigniory granted to La Salle on account of his efforts to reach China by way of the Saint Lawrence. What the early explorers failed to discover the United States is making across the Isthmus of Panama — a short western route to the orient.

tobacco, sweet dried currants, red and white grapes, venison, Indian corn, pumpkins, oysters, hemp, beaver and otter skins, and other things which they either gave ceremoniously to Hudson and his men or bartered for European knives, hatchets, beads, and other trinkets.

At various places along his route Hudson visited the native villages, in which he "saw a great store of men, women and children." The aboriginal habitation was a simple structure with an arched roof, made of bent saplings, covered with bark. The native bed was a mat of woven rushes, a pile of furs, or a heap of leaves. Corn was the staple of diet from which they made a bread which was excellent eating. Great quantities of corn and beans were dried for winter use. Besides corn and beans and the articles of food already mentioned, they lived on birds and fish. Of the latter the river yielded salmon, mullets, rays, and sturgeon in abundance. On rare occasions of the highest ceremony, they cooked a dog.

In general, they were characterized as "a sensible and warlike people, whilst in the highest part the people were more friendly." It was noted, however, that they had a "great propensity to steal" and were "exceedingly adroit in carrying away whatever they took a fancy to."

When Hudson landed at various places, he was generally received with marks of distinction. At one place "the swarthy natives all stood around and sung in their fashion."

On another occasion ("in latitude 42° 18′, which, if accurate, would be three miles north of the city of Hudson), the navigator was paid the highest tribute in the range of Indian hospitality by their serving up, with a pair of pigeons and other delicacies, a fat dog. The latter was skinned in great haste with shells which they had taken from the river. When Hudson was about to leave this village, the Indians, thinking it was through fear, broke their bows and arrows in pieces to show their friendliness.

On still another occasion, at Albany, they came aboard with a plateful of venison, made reverence to Hudson, and, presenting him with strings of wampum, "made an oration."

Only those who have lived among the Indians or especially studied their customs can realize the full meaning of these formal ceremonies — the singing, the dog-feast, the oration, and the wampum strings.

The friendly relations between Hudson and the Indians of the upper reaches of the river had a far-reaching effect on the history of the State. On August 29th — less than a month before Hudson's arrival at the site of Albany — Champlain and a party of Huron Indians had fought and utterly defeated a party of Iroquois at the head of Lake Champlain. By this battle, the French incurred the bitter enmity of the New York Indians, while in contrast with that conflict, Hudson's friendly feast remained in their traditions for 250 years. The result was that the New York Indians were always more friendly toward the Dutch and English pioneers than toward the French, and the French never obtained a permanent foothold in this State.

While at Albany, the Europeans reciprocated the aboriginal courtesies by giving their Indian visitors wine and aqua vitae, "so that they were all merrie" and one was made dead drunk. There is something unintentionally pathetic in Juet's record: "And that was strange to them; for they could not tell how to take it."

The relations of the white and red men in the lower reaches of the river were not, however, always of this friendly character. That they were not so, there is reason to believe, was due more to the uncontrollable character of Hudson's mixed crew than to the master himself. The first conflict occurred on September 6th while the Half Moon was in the lower harbor and while John Colman and four others in the small boat were away exploring the neighboring waters. In some way, Colman's party incurred the hostility of the natives and was attacked. Colman was killed with an arrow in his neck and two of his companions were wounded.

International relations were further strained on the 9th when three Indians who were visiting the Half Moon in a friendly way were made prisoners. One jumped overboard and the other two were dressed in red coats. On the morning of the 15th, while

in the Highlands, these two crawled out of a port-hole and swam away, to make trouble later.

On October 1st, after the Half Moon had "got down below the mountaynes" (or Highlands) on the return trip, an Indian, who had climbed up by the rudder to the cabin window, was caught stealing Juet's pillow, two shirts, and two cartridge belts. Thereupon the mate shot and killed him. The other canoes near the ship fled, some of the occupants jumping out and swimming for shore. The ship's boat was manned and put out to recover the stolen articles, and when one of the Indians who was in the water reached up and caught hold of the gunwale, the cook cut off his hand with a sword and he was drowned.

After these occurrences, it is not surprising that on October 2d, when the Half Moon was apparently in the vicinity of the mouth of Spuyten Duyvil creek, the Indians came out in force and attacked the white men. In the unequal contest between hollowed-log canoes and the 80-ton Half Moon, and between bows and arrows on the one side and firearms on the other, there could be only one result. The Indians were driven off with a loss of eight or ten killed, while the Europeans escaped unscathed to the shelter of the Hoboken cliff of green "on that side of the river that is called Mannahata."

The Half Moon lay at anchor at Hoboken from October 2d to October 4th, the 3d being very stormy. On the 4th she dropped down the harbor and passed out to sea. Then Hudson and his crew took counsel as to their next move. The Dutch mate suggested that they try for Davis strait. But Hudson was opposed to that venture now. He lacked some necessary provisions; and his crew were so unwilling and mutinous that at times they had threatened him savagely. He concluded, therefore, that it was best to go back home. So they kept their prow toward the east and on November 7th arrived at Dartmouth, England. Thence, after some delay, Hudson went to Holland.

CHAPTER X.

Manahata and the Hudson River.

Manahata: One of the most interesting passages in Juet's Journal is that which mentions "that side of the river that is called Mannahata." (October 2d.) This is the only place-name mentioned in the Journal in connection with this river. We have said in the preceding chapter that "Mannahata" was on the New Jersey side of the river where the sense of the passage obviously locates it, but the name Manhattan came to be exclusively applied to Manhattan island so soon after the advent of the Dutch, that this passage in Juet's Journal has been the source of no little trouble to students and commentators. But the apparent inconsistency of Juet in calling the New Jersey side "Mannahata" was not an inconsistency at all. New Jersey was the original Manahata and the great island opposite was Manahatin. Any doubts on this point are dispelled by the earliest known map of Manahata, made in 1610, which is in the general archives of Simancas, Spain. In a letter dated March 22, 1611, Alonso de Velasco, the Spanish ambassador to England, who secretly conveyed to his sovereign every bit of information which he could get about English explorations and discoveries, sent to the King of Spain a map representing the Atlantic coast of the United States from Cape Fear to Newfoundland. Velasco informed his sovereign that in 1610 the King of England had sent to Virginia a surveyor to survey that province and he had returned to London about the month of December with a map of all he could discover. Velasco had surreptitiously secured a copy of it and forwarded it to his master. It is not known who made the original map. There are details of the delineation of the Hudson river — certain bends in the river — which suggest that it was drawn by some one who had actually been up the river or that it was based upon data supplied by some one who had personal knowledge of its characteristics. De Laet, writing in the Netherlands in 1624, and speaking of Hudson's voyage of 1609, says: "Henry Hudson having re-

turned to Amsterdam with this report, in the year 1610 some merchants again sent a ship thither, that is to say, to the second river discovered, which was called Manhattes." But a passage which tends more directly to confirm Velasco's statement is that of Van Meteren, who, writing in London early in 1610, concludes his account of Hudson's voyage by saying: "It was thought probable that the English themselves would send ships to Virginia to explore further the aforesaid river"—the name Virginia being applied then to the whole region from 34° to 45° of north latitude. As the legends on the map are in the English language, it was undoubtedly executed by an Englishman, and probably embodies the discoveries of several navigators on different parts of the coast. By whomever drawn, the map exists, dating from 1610; and upon it clearly appear the names "Manahata" on the New Jersey side and "Manahatin" on the New York side. Mr. William Wallace Tooker, who is probably the best authority on the etymology of the name Manahatin, says that it means "The Island of Hills." The fact that the names Manahata and Manahatin were already in use at the time of Hudson's arrival is a sufficient answer to the theory advanced about 175 years later by a Delaware Indian who told the Moravian missionary Heckwelder that Manhattan meant "the island or place of general intoxication," meaning the place where Indians became intoxicated on white men's liquor.

Hudson River Names: The Hudson river has had at least thirty different names in different languages and probably many more. The Indians probably had many names for the Hudson river of which we have no record for they did not name their rivers as we do. We generally give a single name to a river for its whole length, as the Connecticut river, the Hudson river, the Mississippi river, etc. Such was not the Indian practice. They named localities, and they named a river with reference to the localities or the people living at them. Thus the same river might have different names in the mouths of people going down stream and those going up stream, and varying with both accord-

ing to their different destinations. We have an almost exact parallel in the manner in which we name our highways and streets. For instance, the ancient road between New York and Albany would be called the "Road to Albany" by a northbound traveler and the "Road to New York" by a southbound traveler; while the shorter sections of the same road would be called the "Road to Poughkeepsie" or some other intermediate locality. On the same principle, in New York city, Eighth avenue is so-called south of Fifty-ninth street and north of One Hundred and Tenth street, but between those streets it takes its name from the adjacent park and is called Central Park West. A still better illustration, however, is afforded by our present-time practice of calling the Hudson river opposite New York the North river.

Morgan, in his "League of the Iroquois," says that in the Seneca dialect the Hudson river was known as "Skanehtade Gahunda." Skanehtade was the name for the site of Albany, and meant, with reference to the Iroquois, the place "beyond the openings" — the openings which lay between the Hudson and Mohawk rivers at Schenectady. Gahunda means river. Skanehtade Gahunda, therefore, means "the river beyond the openings."

Dr. Samuel L. Mitchill, in a letter written to the Rev. Samuel Miller, D. D., in 1810, says that the Iroquois name for the river was Cahohàtatèa, but was unable to give its etymology. He says that with reference to the site of Albany it was called Skenectadèa Cahohàtatèa, and with reference to the mouths of the Mohawk and other neighboring streams it was called Tioghsàhronde Cahohàtatèa — Tioghsàhronde meaning the place or places at which streams empty themselves.

In the same letter, Egbert Benson is quoted as giving Shatemuc as a Mohegan (Mahican) name for the river.

In the same letter, John Taylor furnishes another name attributed to the Mohegans, namely Mahakaneghtuc, also written Mahicanituck.

In both of the latter two names above given, the termination "uc" or "uck," meaning place, is readily recognized. Mahicanituck probably means "at the place of the Mahicans."

The first reference to the river in literature is made by Verrazzano. Hitherto, we have known only of his reference to the stream in the general descriptive phrase "una grandissima riviera"—a very great river. During the past year, however, as stated in the preceding article entitled "Giovanni da Verrazzano and His Discoveries in America," a document has come to light in Rome, from which we learn for the first time that Verrazzano named the river Vendôme in memory of the principality which Francis I held when he was Dauphin, and New York Bay St. Margarita in honor of the King's sister. Verrazzano's expression "una grandissima riviera," however, was a natural one, and is reflected in the names Rio Grande (Spanish), Riviere Grande (French, 1569), Groote riviere (Dutch, 1625) and Grand river (English).

Oviedo, describing the voyage of Gomez (1525) appears to refer to the Hudson river when he speaks of the Rio San Antonio. This name, anglicized Saint Anthony, may have supplied the name of Anthony's Nose, applied to the mountain north of Peekskill.

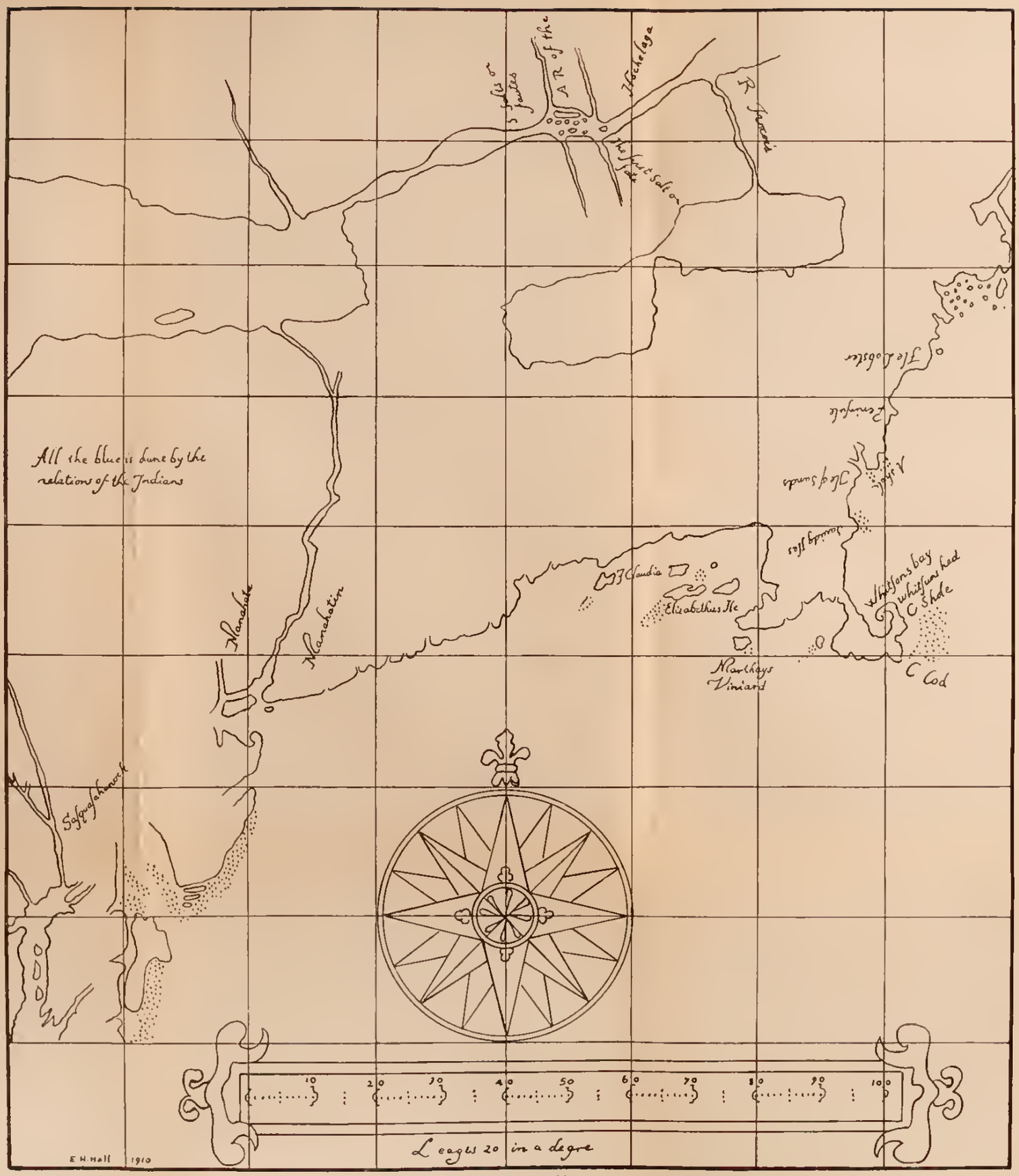
Spanish voyagers after Gomez called the river, after him, Rio de Gamez. It also appears on various maps spelled Rio de Gamez and Rio de Guamas. Asher, the eminent geographical authority, says that the Hudson was so called in the Spanish routiers made at the time for timid sailors who would skirt along the coast rather than steer boldly in a direct course for the West Indies.

The late John Fiske, in his "Dutch and Quaker Colonies," says that the Hudson is also identical with the river of Norombega of the early maps, but it does not appear to the present writer that the identity has been established satisfactorily.

Hudson's Journal of his voyage in 1609 not being extant, we do not know what he himself called the river. Juet's Journal of that voyage says that on October 4th they hoisted sail and took their departure out of "the great mouth of the great River." The Great river appears to have been the popular name with the Dutch for a long time.

Very soon, however, it was given Hudson's name.

Tho annexed map is an extract from a map sent by Alonso de Velasco (Spanish Ambassador to England) to Philip III of Spain, in a letter dated at London, March 22, 1611. The letter is in the General Archives of Simancas, Department of State, volume 2588, folio 22. Tho map was made by a surveyor who was sent to Ameriea by James I in 1610 and who returned to England about December, 1610. It is evidently compiled from the maps of several navigators including Hudson. This is tho earliest map upon which the names Manahata and Manahatin appear (see page 301). The direction of the Hudson river and the details of its bends indicate that its delineation is based upon the map of a person who actually explored it. Tho connection of the Hudson river with Lake Ontario in the part "dune by the relations of the Indians," is explained by the fact that Indians went in canoes from the Hudson river to Lake Ontario by way of the Mohawk river, Wood creek, Oneida lake and the Oswego river, with only a short portage at Rome (see page 307). A copy of Velasco's letter and an outline of the whole map from which this extract has been made may be found in Alexander Brown's "Genesis of the United States," published and copyrighted by Houghton, Mefflin & Co., to whom we are indebted for permission to make this tracing. The compass and scale in this extract have been transferred from another part of the map.



First Map of Manahata and Manahatin

On the Carte Figurative, attached to the memorial presented to the States-General in 1616, the river is named Riviere van den Vorst Mauritius, or the River of Prince Maurice.

In 1624–1628, Wassenær, in his "Historisch Verhael," refers to it as the "river called by us Mauritius, by others Rio de Montagne." The latter name means River of the Mountains.

De Laet, in his "Nieuw Werelt" (1625) says the river "was called Manhattes from the savage nation that dwelt at its mouth." A little further on he says: "The great North River of New Netherland is called by some the Manhattes River from the people who dwell near its mouth; by other also Rio de Montaigne; but by our countrymen it is generally called the Great River."

It was also called the Manhattans river.

To distinguish it from the Delaware or South river, the Dutch also called it the Noort rivier, whence our North river.

In 1633, De Laet mentions it under the name of Nassau river. The first mention of this river by Hudson's name appears to have been in "A Brief Relation of the Discovery and Plantation of New England and of sundry accidents occurring therein from 1607 to 1622" which speaks of Captain Dermer having met "Hollanders who trade in Hudsons river in 1621."

In common use to-day, it is called the North river opposite the business portion of New York city, and the Hudson river above.

Physical Characteristics: The Hudson river is very remarkable in several respects. In the first place, for 150 miles of its length it is not a true river but a fiord. From Albany to the ocean its rock bottom, with the exception of a few islands, is below sea-level. How far below is not accurately known. Opposite Storm King mountain, where the engineers of the new aqueduct for supplying New York city with water from the Catskills hoped to build a tunnel under the river, they have bored nearly 1,000 feet down into the dirt and sand that fill the gorge under the water and have not been able to find rock bottom. The shore line at Albany is at practically the same elevation as the shore line at New York and the tide rises at Albany two and three-tenths feet. This upward and downward flowing of the tide, of which Hudson took

advantage in his voyage, had, of course, long been noticed by the Indians who spoke of the river with wonder as the stream that flowed both ways.

The river is also remarkable for its great natural beauty. The distinguished German surgeon Dr. Adolf Lorenz, while visiting on its shores in 1902, pronounced it more beautiful than the Rhine. This beauty, so famous throughout the world, is due to very ancient causes; and the person who will search beyond the surface appearances for those causes will truly find, as Shakespeare says, "sermons in stones and books in the running brook." The variety of the Hudson's scenery is due to the extraordinary range of its geological history. From its source to the sea it is an epitome of creation. It rises in the Adirondack mountains which, now towering to a height of 5,402 feet although once much higher, lifted their heads above the great primeval flood when almost all the rest of the United States was still a wild waste of waters. The famous Highlands of the Hudson, between which Hudson sailed 300 years ago, are of the same ancient Archæan rocks and were once a group of islands. The Catskills are more modern and the Palisades still younger. The latter were once a fiery, molten mass, and their columnar shape is due to the manner in which that mass cooled off. These few facts will indicate what a storehouse for fascinating research the Hudson valley is for the person, young or old, who will study it with the mind as well as the eye.

Advent of Civilization: Civilization followed Hudson's voyage into the Hudson river valley, partly because the valley was beautiful and attractive, partly because it was fertile, partly on account of the very valuable fur trade which was the foundation of New York commerce, and partly for other reasons, but very largely on account of the relation of the river to other lines of water travel. Before the white man's advent, an Indian could start from New York harbor, paddle up the Hudson to Fort Edward, thence up a little creek, and, making a short carry, resume his journey down Wood creek[30] and pass through Lake Champlain and the Sorel river to the St. Lawrence. Thence he could ascend to the Great

Lakes or descend to the Atlantic ocean. Or, going up the Hudson and Mohawk, with a short carry at Rome, he could proceed down another Wood creek and by way of Oneida lake and the Oswego river to Lake Ontario, and thence, either to the ocean or to the remotest regions of Lake Superior. The same geological forces which produced this network of water connections also formed the almost level terrace along which the Indians instinctively made their great east and west trail from the Hudson to Lake Erie, and along which, at a later date, the white men built the Erie canal. The remarkable situation of their territory with relation to the Hudson river and these other waters was a leading factor of the pre-eminence of the Iroquois, the most powerful aboriginal people in America north of Mexico, and, with the advent of European civilization, has been one of the most potent causes of the pre-eminence of New York as the Empire State. It is only when this is realized that we can fully appreciate the importance of Hudson's services to civilization in making a river with such resources known to the world.

Hudson's voyage was followed immediately by the advent of Dutch traders who built temporary habitations on Manhattan Island and at the site of Albany and at these trading posts carried on a lucrative fur trade with the Indians. In 1620, the Puritans in Holland asked permission to go to the North river to settle, and although the permission was refused, they actually started out for New Netherland. Rough weather, however, compelled them to take refuge inside of Cape Cod, and they eventually settled at Plymouth instead of on Manhattan Island.[31]

Although a few traders' huts had been erected at Manhattan as early as 1613, and also at the site at Albany about that time, it

[30] The Champlain canal now connects the Hudson river and Lake Champlain by this route.

[31] Bradford's "History of Plimouth Plantation" says: "After long beating at sea, they fell with that land which is called Cape Cod. . . . After some deliberation they tacked aboute and resolved to stand for ye southward (ye wind & weather being faire) to finde some place aboute Hudsons river for their habitation. But after they had saled yt course aboute halfe ye day, they fell amongst deangerous shoulds and roring breakers . . . and as they conceived them selves in great danger, they resolved to bear up againe for the Cape."

was not until 1624 that a permanent settlement was effected at Albany and 1626 at New York.

From that time the colony grew steadily. New Netherland was captured by the English in 1664; recaptured by the Dutch in 1673; and repossessed by the English in 1674. For over a century it remained a colony of Great Britain. Then came the American Revolution and American Independence.

CHAPTER XI.

Juet's Journal of the Voyage of the Half Moon.

We give in the following pages Juet's Journal of the voyage of the Half Moon. By means of foot-notes, we have collated with Juet's account passages from Van Meteren's "History of the Netherlanders" and De Laet's "New World," referring them as nearly as possible to their appropriate places in the longer account. Van Meteren's account was written in London, early in 1610, soon after Hudson's return. The preface to De Laet's work is dated November 15, 1624. Both of these writers appear to have had before them Hudson's own journal or data therefrom. Van Meteren, in the passage quoted in note 47 following, inadvertently lets slip a significant "we," which indicates that he was writing from Hudson's data; and De Laet makes several direct quotations of Hudson's words which appear in the foot-notes.

The third Voyage of Master HENRY HVDSON toward Noua Zembla, and at his returne, his passing from Farre Hands, to New-found Land, and along to fortie foure degrees and ten minutes, and thence to Cape Cod, and so to thirtie three degrees; and along the coast to the Northward, to fortie two degrees and an halfe, and vp the Riuer neere to fortie three degrees. Written by ROBERT IVET, of Lime-house.

On Saturday *the Fiue and twentieth of March*, 1609, after the old Account, we set sayle from Amsterdam,[32] and by the *seuen and twentieth* day, we were downe at the Texel: and by twelve of the

[32] *Van Meteren:* "We have observed in our last book that the Directors of the Dutch East India Company sent out in March last year, on purpose to seek a passage to China by northeast or northwest, an experienced English pilot named Henry Hudson in a vlie boat, having a crew of eighteen or twenty hands, partly English, partly Dutch. This Henry Hudson left the Texel on the 6th of April, 1609."

[May.]

clocke we were off the Land, it being East of vs two leagues off. And because it is a journey vsually knowne, I omit to put downe what passed, till we came to the height of The North Cape of Finmarke, which we did performe by the *fift of May* (stilo nouo) being Tuesday. On which day we obserued the height of the Pole, and found it to bee 71 degrees and 46 minutes; and found our Compasse to vary six degrees to the West: and at twelue of the clocke, the North Cape did beare South-west and by South tenne leagues off, and wee steered away East and by South, and East.[33]

After much trouble with fogges, sometimes, and more dangerous of Ice.

The nineteenth, being Tuesday, was close stormie weather, with much wind and snow, and very cold: the wind variable betweene the North North-west, and North-east. We made our way West and by North till noone. Then we obserued the Sunne hauing a slake, and found our heigth to bee 70 degrees 30 minutes. And the ship had out-runne vs twentie leagues, by reason of the set of the streame of The White Sea: and we had sight of Wardhouse. Then at two of the clocke wee tackt to the Eastward: for we could not get about the North Cape, the wind was so scant; and at eight of the clocke at night, on the one and twentieth, the North Cape did beare South-east and by South seuen leagues off. And at midnight Assumption Point did beare South and by East, fiue leagues off vs.

DeLaet: "As to the first discovery, the Directors of the Chartered East Indian Company, in 1609, despatched the yacht Half Moon, under command of Henry Hudson, Captain and super-cargo, to seek a passage to China by the northeast.

[33] *Van Meteren:* "And having doubled the Cape of Norway the 5th of May, directed his course along the northern coasts towards Nova Zembla; but he there found the sea as full of ice as he had found it in the preceding year, so that he lost the hope of effecting anything during the season. This circumstance, and the cold, which some of his men, who had been in the East Indies, could not bear, caused quarrels among the crew, they being partly English, partly Dutch, up on which the captain, Henry Hudson, laid before them two propositions. The first of these was to go to the coast of America, to the latitude of 40°. This idea had been suggested to him by some letters and maps which his friend, Captain Smith, had sent him from Virginia, and by which he informed him that there was a sea leading into the western ocean, by the north of the southern English colony. Had this information been true (experience goes as yet to the contrary), it would have been of great advanage, as indicating a short way to India. The other proposition was to direct their search to Davis's Straits. This meeting with general approval, they sailed on the 14th of May."

De Laet: "But they changed their course and stood over towards New France."

[May.]

The two and twentieth, gusting weather with haile and snow, the Sunne breaking out sometimes: we continued our course along the Land West Southwest. And at tenne of the clocke at night we were thwart off Zenam. The bodie of it did beare East off vs fiue leagues: and the course from the North Cape to Zenam, is for the most part West and by South, and West South-west, fiftie foure leagues.

The three and twentieth, faire Sun-shining weather; the wind at East and by South, and East South-east, wee steered along the Land South-west, and South-west and by West, eight leagues a Watch, for so we found the Land to lye from Zenam to Lofoote. And the distance is fiftie leagues from the bodie of Zenam, to the Westermost Land of Lofoote. And from the one to the other, the course is South-west and by West. For the Needle of our Compasse was set right to the North. At twelue of the clocke at night, the bodie of Lofoote did beare South-east, sixe leagues off.

The foure and twentieth, faire cleere Sun-shining weather: the wind variable vpon all points of the Compasse, but most vpon the South-east, and sometimes calme. We continued our course West South-west as before. And at eight of the clocke at night, the Souther part of Lofoote did beare South-east ten leagues off vs.

The fiue and twentieth, much wind at North-east, with some snow and haile. The first watch the wind came to the East a fine gale, and so came to the North-east, the second watch at foure of the clocke, and freshed in: And at eight of the clocke it grew to a storme, and so continued. At noone we obserued, and made the ship to be in 67 degrees 58 minutes. Wee continued our course South-west, twelue leagues a watch. At nine of the clocke, Lofoote did beare East of vs fifteen leagues off. And we found the Compasse to haue no variation. The wind increased to a storme.

The six and twentieth, was a great storme at the North North-east, and North-east. Wee steered away South-west afore the wind with our fore course abroad: for wee were able to maintayne no more sayles, it blew so vehemently, and the Sea went so high, and brake withall, that it would haue dangered a small ship to lye vnder the Sea. So we skudded seuenty leagues in foure and twentie houres. The storme began to cease at foure of the clocke.

The seuen and twentieth, indifferent faire weather, but a good stiffe gale of wind at North, and North North-east, wee held on our course as before. At noone wee obserued and found our heigth to be 64 degrees 10 minutes. And wee perceiued, that the Cur-

[May]

rent had hindred vs in fortie eight houres to the number of 16 leagues to our best judgment. We set our mayne-sayle, sprit-sayle, and our mayne-top-sayle, and held on our course all night, hauing faire weather.

The eight and twentieth, faire weather and little wind at North-east, we held on our course South-west. At noone we obserued the heigth, and were in 62 degrees and 30 minutes. The after-noone was little wind at North North-west. The second watch it fell calme. At foure of the clocke wee had sight of the Iles called Farre, and found them to lye out of their place in the Sea Chart fourteene leagues to farre Westerly. For in running South-west from Lofoote, wee had a good care to our steerage and obseruations; and counted our selues thirtie leagues off by our course and obseruation: and had sight of them sixteene or eighteene leagues off.

The nine and twentieth, faire weather sometimes calme, and sometimes a gale with the wind varying at South-west, and so to the North-east. Wee got to the Ilands, but could not get in. So we stood along the Ilands. The ebbe being come, we durst not put in.

Thirtieth faire weather; the wind at South-east and East South-east. In the morning we turned into a Road in Stromo, one of the Ilands of Farre,[34] between Stromo and Muggenes, and got in by nine of the clocke: for it flowed so there that day. And as soone as we came in, we went to Romage, and sent our Boat for water, and filled all our emptie Caskes with fresh water. Wee made an end of our Romaging this night by ten of the clocke.

The one and thirtieth, faire Sun-shining weather, the wind at East South-east. In the fore-noone our Master with most of his Company went on shoare to walke, and at one of the clocke they returned aboord. Then we set sayle.

The first of June, stilo nouo, faire Sun-shining weather, the wind at East South-east. We continued on our course South-west and by East. At noone we obserued the Sunne, and found our heigth to be 60 degrees 58 minutes: and so continued on our course all night with faire weather. This night we lighted Candles in the Bittacle againe.

The second mystie weather, the wind at North-east. At noone we steered away West South-west. to find Busse Iland, discouered

[34] *Van Meteren:* "and arrived with a good wind at the Faroe Islands where they stopped but twenty-four hours to supply themselves with fresh water."

[June.]
in the yeere 1578, by one of the ships of Sir Martin Frobisher, to see if it lay in her true latitude in the Chart or no; wee continued our course as before all night, with a faire gale of wind: this night we had sight of the first stars, and our water was changed colour to a white greene. The Compasse had no variation.

The third, faire Sun-shining weather; the wind at North-east. We steered on our course South-west and by West, with a stiffe gale of wind. At noone we obserued and found our heigth to bee 58 degrees 48 minutes. And I was before the ship 16 leagues, by reason of the Current that held vs so strong out of the South-west. For it is eight leagues in foure and twentie houres. We accounted our selues neere Busse Iland: by mid-night wee looked out for it, but could not see it.

The fourth, in the morning was much wind with fogge and raine. Wee steered away South-west by west all the fore-noone, the wind so increasing, that wee were enforced to take in our top-sayle: the winde continuing so all the after-noone. Wee steered away South-west all the fore-part of the night; and at ten of the clocke at night it was little wind; and that was at South, and so came vp to the South South-east.

The fift, stormie weather, and much wind at South, and South by East, so that at foure of the clocke in the morning, we tooke in our fore-sayle, and lay a try with our mayne corse, and tryed away West North-west foure leagues. But at noone it was lesse wind, and the Sunne shewed forth; and we obserued, and found our heigth to be 56 degrees 21 minutes. In the after-noone the wind vered to and fro betweene the South-west and the South-east, with raine and fogge, and so continued all night. Wee found that our ship had gone to the VVestward of our course.

The sixth, thicke hasie weather with gusts of wind, and showers of raine. The wind varied betweene East South-east and South-west, wee steered on many courses a West South-west way. The afternoone watch the wind was at East South-east, a stiffe gale with myst and raine. Wee steered away South-west, by West eight leagues. At noone the Sunne shone forth, and we found the heigth to bee 56 degrees 8 minutes.

The seuenth, faire sun-shining weather all the fore-noone, and calme vntil twelue of the clocke. In the afternoone the wind came to the North-west, a stiffe gale. We steered South-west by West, and made a South-west way. At noone we found the height to bee 56 degrees one minute, and it continued all night a hard gale.

[June.]

The eight, stormy weather, the wind variable, betweene West and North-west much wind: at eight of the clocke wee tooke off our Bonnets. At noone the Sunne shewed forth, and wee obserued, and our height was 54 degrees 30 minutes.

The ninth. faire sun-shining weather, and little wind all the fore-part of the day vntill eleuen of the clocke. Then the wind came to the South South-east, and we steered away West South-west. At noone we found our height to bee 53 degrees and 45 minutes, and we had made our way South by West ten leagues. In the after-noone the wind increased and continued all night at East North-east and East.

The tenth, faire weather, the wind variable betweene East North-east and South-east, wee steered on our course as before. At foure of the clocke in the afternoon the wind came vp at South-east. And we held our course as before. At noone wee obserued and found our height to be 52 degrees 35 minutes.

The eleuenth, in the morning was thicke and foggie, the winde varying betweene South South-west, and North-west. At foure of the clocke in the morning, wee tackt about to the Southward: At eleuen of the clocke the winde came to the North-west, and so to the West North-west. This day we had change of water, of a whitish greene, like to the Ice water to the North-west. At noone it cleered vp, and became very faire weather; wee put out our mayne top-sayle: then we obserued the Sunne, and found our height to be 51 degrees 24 minutes. We had sayled many courses and found our ship gone to the Southward of our account ten leagues, by reason of a current from the North-ward. The Compasse varied one point to the East.

The twelfth, faire Sun-shining weather, but much wind at the west: we stood to the Southward all day, the wind shifting betweene the South-west and the West and by North. Wee made our way South halfe a point West, eight and twentie leagues. Our height at noone was 50 degrees 9 minutes. At eight of the clock at night we took off our Bonets, the wind increasing.

The thirteenth, faire Sun-shining weather: the wind variable betweene the West, and North North-west. We made our way South South-west seuen and twentie leagues. At noone we obserued, and found our heigth to be 48 degrees 45 minutes. But not to be trusted, the Sea went so high. In the afternoone the winde was calmer, and wee brought to our Bonets, and stood to the Southward all night with a stiffe gale.

[June.]

The fourteenth, faire and cleere Sun-shining weather: The winde variable betweene the North-west and South-west by West. At mid-night I obserued the North starre at a North-west by West Guarde; a good obseruation 49 degrees 30 minutes. And at noone wee obserued the Sunne, and our heigth was 48 degrees 6 minutes. And I made account we ranne betweene the two obseruations twelue leagues. At one of the clocke in the after-noone, wee cast about to the Westward, and stood so all night: the winde increased to a storme, and was very much winde with Raine.

The fifteenth, we had a great storme, and spent ouer-boord our fore-mast, bearing our fore corse low set.

The sixteenth, we were forced to trie with our mayne sayle, by reason of the vnconstant weather. So wee tried foure watches South-east and by South eight leagues and an halfe, and two watches sixe leagues.

The seuenteenth, reasonable faire weather: the wind variable betweene West South-west, and West North-west. And a stiffe gale of wind, and so great a swelling Sea out of the West South-west, that wee could doe nothing. So one watch and an halfe wee droue North foure leagues and an halfe, and foure watches and an halfe South and by East halfe a point East twelue leagues.

The eighteenth, reasonable weather but close and cloudie, and an hard gale of wind, and a great Sea. The winde being at the North-west, wee lay to the Southward, and made our drift South and by West, fiue leagues. The after-noone proued little wind, and the night part calme.

The nineteenth, in the fore-noone faire weather and calme. In the morning we set the piece of our fore mast, and set our fore corse.

The one and twentieth, faire Sun-shining weather, but much wind and a great Sea. We split our fore saile at ten of the clocke; then we laid it a trie with our mayne sayle, and continued so all day. In the night it fell to be little wind. This day our heigth was 45 degrees 48 minutes.

The two and twentieth, very faire Sun-shining weather, and calme all the after-noone. At noone we made a very good obseruation, and found our heigth 44 degrees 58 minutes. At eight of the clocke at night wee had a small gale of winde at South-east. And wee steered away West for New-found Land. The true Compasse varied one point East.

[June.]

The three and twentieth, thicke weather with much wind and some raine. At eight of the clocke in the morning, the wind came to the West South-west, and West so stiffe a gale, that we were forced to take our top-sayle, and steered away North North-west vntil foure of the clock in the after-noone. Then we tact to the Southward the winde at West North-west. At eight of the clocke at night wee tooke in our top-sayles, and laid it a trie with our mayne sayle, the winde at West.

The foure and twentieth, a stiffe gale of wind, varying betweene the West and North North-west, we tried till sixe of the clocke: at which time we set our foresaile, and steered way West and by South by our Compasse eight leagues in foure watches: and wee tried away South in one watch and an halfe.

The fiue and twentieth, faire Sun-shining weather, the wind at North North-west and North, we steered away West by South by our Compasse till twelue of the clocke: at which time we had sight of a sayle, and gaue her chase but could not speake with her. She stood to the Eastward; and we stood after her till sixe of the clocke in the after-noone. Then wee tact to the Westward againe, and stood on our course. It was faire all night, and little wind sometimes.

The six and twentieth, all the fore-part of the day very faire weather and hot, but at foure of the clocke in the after-noone it grew to bee much winde and raine: the winde was at South South-east. At noone wee obserued and found our heigth to bee 44 degrees 33 minutes. At eight of the clocke at night, the wind came to South-west, and West South-west. Wee steered North-west, one Watch, and at twelue in the night, to the West, and West by South, very much wind. So we could lye but North North-west.

The seuen and twentieth, very much winde and a soare storme, the wind Westerly. In the morning at foure of the clocke, wee tooke in our fore-corse, and layd it a trie with our mayne-corse low set; and so continued all the day and night, two watches to the Northward. At eight of the clocke at night, we tackt to the Southward.

The eight and twentieth, faire sun-shining weather, the wind at West and by South; we lay a trie to the Southward till eight of the clocke in the morning. Then we set our fore-corse, and stood to the Southward a stiffe gale of wind, but faire weather

[Jnne.]
and a great Sea, out of the Wester-boord, and so continued all night.

The nine and twentieth, faire sun-shining weather, the wind at West and by South; we stood to the Southward vntil sixe of the clocke at night, and made our way South and by East, foure leagues. Then the winde came to the South-west, and wee cast about to the VVestward, and made our way Vest North-west all night. At noone, I found the height 43 degrees 6 minutes. The variation one point VVest.

The thirtieth, faire sun-shining weather, the winde at South-west and by VVest, we steered North-west and by VVest. And made our way so, by reason of the variation of the Compasse. At noone, I found the height to be 43 degrees 18 minutes; wee continued our course all night, and made our way North-west and by VVest, halfe a point VVesterly, fiue and twentie leagues.

The first of Iuly, close mystie and thicke weather, but a faire gale of wind at South-west, and South-west by South. We steered away North-west and by West, Westerly, and made our way so, by reason of the variation of the Compasse. At eight of the clocke at night, wee sounded for the Banke of New-found Land, but could get no ground.

The second, thicke mystie weather, but little wind, and that at West, and West and by South. At eight of the clocke in the morning, we cast about to the Southward, and when our ship was on stayes, we sounded for the Banke, and had ground in thirtie fathoms, white sand and shells, and presently it cleered; and we had sight of a sayle, but spake not with her. In the night we had much Rayne, Thunder and Lightning, and wind shifting.

The third, faire sun-shining weather, with a faire gale of wind at East North-east, and wee steered away West South-west by our Compasse, which varyed 17 degrees Westward. This morning we were among a great Fleet of French-men, which lay Fishing on the Banke; but we spake with none of them. At noone wee found our heighth to bee 43 degrees 41 minutes. And we sounded at ten of the clocke, and had thirtie fathoms gray sand. At two of the clocke wee sounded, and had fiue and thirtie fathoms gray sand. At eight of the clocke at night, we sounded againe, and had eight and thirtie fathoms gray sand, as before.

The fourth, at the fore-part of the day cleere, with a faire gale of wind, but variable betweene the East North-east, and South

[July.]

and by East, wee held on our course as before. The after-noone was mystie, the wind shifting betweene the South and the West, till foure of the clocke. Then we tooke in our top-sayle and sprit-sayle, and sounded and had no ground in seventie fathoms. The winde shifted still until eight of the clocke then it came to the North North-east, and North-east and by North, and we steered away West North-west, by our varyed Compasse, which made a West way halfe point North. The Compasse varyed 15 degrees from the North to the West.

The fift, faire sun-shining weather, the wind at North-east and by North, we steered away West North-west, which was West halfe a point North. At noone we found our heighth to be 44 degrees 10 minutes, and sounded, and had no ground in one hundred fathoms. The after-noone proued calm sometimes, and sometimes little wind, vntil nine of the clocke in the night. Then the wind came to the East, and we held on our course. At mid-night I obserued and found the height to bee 44 degrees 10 minutes, by the North Starre and the Scorpions heart. The Compasse varyed 13 degrees.

The sixth, the fore-part of the day faire weather, and a stiffe gale of wind, between South South-east, and South-west, wee steered West and by North, and West North-west. The after-part of the day from two of the clocke, was all foggie and thicke weather; the wind a hard gale, varying betweene South-west and by South, and West and by North, we made our way North-west halfe a point Northerly, nineteene leagues, upon many points foure Watches. At night at eight of the clocke, we sounded and had no ground at one hundred fathoms.

The seuenth, faire sun-shining weather, the wind varying betweene West and by North, and West and by South. At foure of the clocke in the morning, we cast about to the Southward, and stood so till one in the after-noone. At noone we found our height to be 44 degrees 26 minutes. At seuen of the clocke we tackt to the Northward. At eight at night, we tackt to the Southward, and sounded, and had nine and fiftie fathoms, white sand.

The eight, in the fore-noone faire weather, but the morning foggie till seven of the clocke. At foure of the clocke in the morning we sounded, and had fiue and fortie fathoms, fine white sand, and we had runne fiue leagues South and by West. Then we stood along one Glasse, and went one league as before. Then

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we stood one Glasse and sounded, and had sixtie fathoms. Then wee takt and stood backe to the Banke, and had five and twentie fathoms; and tryed for Fish, and it fell calme, and we caught one hundred and eighteene great Coddes, from eight a clocke till one, and after Dinner wee tooke twelue, and saw many great Scoales of Herrings. Then wee had a gale of wind at South, and it shifted to the West North-west, and we stood three Glasses and sounded and had sixtie fathoms, and stood two Glasses, and had two and fortie fathoms, red stones and shells. So wee sounded every Glasse and had seueral soundings 35, 33, 30, 31, 32, 33 and 34 fathoms.

The ninth, faire calme weather, we lay becalmed all day and caught some Fish, but not much, because we had small store of salt. At three of the clocke in the after-noone, wee had a gale at South-east, and South South-east, and we steered away Westerly, our Compasse was West and by South halfe a point South. At foure of the clocke, we sounded and had but fifteene, seuenteene, and nineteene fathoms on a fishing Banke; and we sounded euery Glasse. Then we could get no ground in fiue and twentie fathoms, and had sight of a sayle on head off vs. At noone our height was 44 degrees 27 minutes. We stood to the Westward all night, and spake with a French-man, which lay Fishing on the Banke of Sablen, in thirtie fathoms, and we saw two or three more.

The tenth, very mystie and thicke weather, the wind at South-west, a faire gale. We stood to the South-ward, and made our way South-east and by East. At twelue of the clocke we sounded, and had eight and fortie fathoms: againe at two we sounded, and had fiftie fathoms. And at sixe-of the clocke we sounded: and had eight and fortie fathoms on the end of the Banke. Againe, at eight of the clocke at night wee sounded, and had no ground in eightie fathomes, and were ouer the Banke. So wee stood along till mid-night. The Compasse varyed 17 degrees to the Westward.

The eleuenth, very thicke and mistie weather. At twelue of the clocke at night, we cast about to the Westward, and stood so all day, and made our way West North-west. We sounded at twelue of the clocke, but had no ground; so we stood to the Westward all the fore-part of the night, and sounded but could get no ground in fiftie or sixtie fathoms till mid-night. Then I sounded and had ground at fifteene fathoms, white sand.

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The twelfth, was very foggie, we stood our course all the morning till eleuen of the clocke; at which time we had sight of the Land, which is low white sandie ground, right on head off vs; and had ten fathoms. Then we tackt to the Southward, and stood off foure Glasses: then we tackt to the Land againe, thinking to haue rode vnder it, and as we came neere it, the fog was so thicke that we could not see; so wee stood off againe. From mid-night to two of the clocke, we came sounding in twelue, thirteene, and fourteene fathoms off the shoare. At foure of the clocke, we had 20 fathoms. At eight of the clocke at night 30 fathoms. At twelue of the clocke 65 fathoms, and but little winde, for it deeped apace, but the neerer the shoare the fairer shoalding.

The thirteenth, faire sun-shining weather, from eight of the clocke in the fore-noone all day after, but in the morning it was foggie. Then at eight of the clocke we cast about for the shoare, but could not see it; the wind being at South by our true Compasse, wee steered VVest and by North. At noone we obserued, and found our height to bee 43 degrees 25 minutes;[35] so we steered away VVest and by North all the after-noone. At foure of the clocke in the after-noone, we sounded and had fiue and thirtie fathoms. And at sixe of the clocke, wee had sight of the Land, and saw two sayles on head off vs. The land by the waters side is low Land, and white sandie Bankes rising full of little Hils. Our soundings were 35, 33, 30, 28, 32, 37, 33 and 32 fathoms.

The foureteenth, full of mysts flying and vading, the wind betweene South and South-west, we steered away West North-west, and North-west and by West. Our soundings were 29, 25, 24, 25, 22, 25, 27, 30, 28, 30, 35, 43, 50, 70, 90, 70, 64, 86, 100 fathoms, and no ground.

The fifteenth, very mystie, the winde varying betweene South and South-west, wee steered West and by North, and VVest North-west. In the morning we sounded, and had one hundred fathoms, till foure of the clocke in the after-noone. Then we sounded againe, and had seuentie fiue fathoms. Then in two Glasses running, which was not aboue two English miles, we sounded and had sixtie fathoms, and it shoalded a great pace vntill we came to twentie fathoms. Then we made account we were neere the Ilands that lie off the shoare. So we came to an Anchor, the Sea being very smooth and little wind, at nine of

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35 *De Laet:* "and having passed the banks of Newfoundland in latitude 43° 23′" (Probably near Cape Sable, Nova Scotia.)

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the clocke at night. After supper, we tryed for Fish, and I caught fifteene Cods, some the greatest that I haue seene, and so we rode all night.

The sixteenth, in the morning it cleered vp, and wee had sight of fiue Ilands lying North, and North and by VVest from vs, two leagues. Then wee made ready to set sayle, but the myst came so thicke that we durst not enter in among them.

The seuenteenth, was all mystie, so that wee could not get into the Harbour. At ten of the clocke two Boates came off to vs, with sixe of the Sauages of the Countrey, seeming glad of our coming. VVe gaue them trifles, and they eate and dranke with vs; and told vs, that there were Gold, Siluer, and Copper mynes hard by vs; and that the French-men doe Trade with them; which is very likely, for one of them spake some words of French. So wee rode still all day and all night, the weather continuing mystie.[36]

The eighteenth, faire weather, wee went into a very good Harbour, and rode hard by the shoare in foure fathoms water. The Riuer runneth vp a great way, but there is but two fathoms hard by vs. VVe went on shoare and cut vs a fore Mast, then at noone we came aboord againe, and found the height of the place to bee in 44 degrees 1 minute; and the Sunne to fall at a South South-west Sunne. VVe mended our sayles, and fell to make our fore-Mast. The Harbour lyeth South and North, a mile in where we rode.[37]

The nineteenth, we had faire sun-shining weather, we rode still. In the after-noone wee went with our Boate to looke for fresh water, and found some; and found a shoal with many Lobsters on it, and caught one and thirtie. The people coming aboord, shewed vs great friendship, but we could not trust them.

The twentieth, faire sunne-shining weather, the winde at South-west. In the morning, our Scute went out to catch fresh Fish halfe an hour before day, and returned in two houres, bringing seuen and twentie great Coddes, with two hookes and lines. In the after-noone wee went for more Lobsters, and caught fortie,

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36 *De Laet:* "he made the land in latitude 44° 15′ with a west northwest and northwest course, and went on shore at a place where there were certain natives with whom, as he understood, the French came every year to trade."

37 *Van Meteren:* "After leaving these islands" [the Faroe Islands] "they sailed on till on the 18th of July they reached the coast of Nova Francia under 44° where they were obliged to land for the purpose of getting a new foremast, having lost theirs. They found one and set it up."

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and returned aboord. Then wee espied two French Shallops full of the Countrey people come into the Harbour, but they offered vs no wrong, seeing we stood vpon our guard. They brought many Beauer skinnes, and other fine Furres, which they would haue changed for redde Gownes. For the French trade with them for red Cassockes, Kniues, Hatchets, Copper, Kettles, Treuits, Beades, and other trifles.[38]

The one and twentieth, all mystie, the wind Easterly, wee rode still and did nothing, but about our Mast.

The two and twentieth, faire Sun-shining weather, the winde all Northerly, we rode still all the day. In the after-noone our Scute went to catch more Lobsters, and brought with them nine and fiftie. The night was cleere weather.

The three and twentieth, faire sun-shining weather and very hot. At eleven of the clocke, our fore Mast was finished, and we brought it aboord, and set it into the step, and in the after-noone we rigged it. This night we had some little myst and rayne.

The foure and twentieth, very hot weather, the winde at South out of the sea. The fore-part of the day wee brought to our sayles. In the morning, our Scute went to take Fish, and in two houres they brought with them twentie great Coddes, and a great Holi-but, the night was faire also. We kept good watch for feare of being betrayed by the people, and perceiued where they layd their Shallops.

The fiue and twentieth, very faire weather and hot. In the morning wee manned our Scute with foure Muskets, and sixe men, and tooke one of their Shallops and brought it aboord. Then wee manned our Boat and Scute with twelue men and Muskets, and two stone Pieces or Murderers, and draue the Saluages from their Houses, and tooke the spoyle of them, as they would haue done of vs.[39] Then wee set sayle, and came downe to the Har-bours mouth, and rode there all night, because the winde blew right in, and the night grew mystie with much rayne till mid-night. Then it fell calme, and the wind came off the Land at

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[38] *Van Meteren:* "They found this a good place for cod-fishing as also for the traffick in skins and furs, which were to be got there at a very low price."

[39] *Van Meteren:* "But the crew behaved badly towards the people of the country, taking their property by force, out of which there arose quarrels among them. The English, fearing that they would be outnumbered and worsted, were, therefore, afraid to pursue the matter further."

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West North-west, and it began to cleere. The Compasse varyed 10 degrees North-west.

The sixe and twentieth, faire and cleere sunne-shining weather. At fiue of the clocke in the morning, the winde being off the shoare at North North-west we set sayle and came to sea,[40] and by noone we counted our ship had gone fourteene leagues South-west. In the after-noone the winde shifted variably betweene West South-west, and North-west. At noone I found the height to bee 43 degrees 56 minutes. This Eeuening being very faire weather, wee obserued the variation of our Compasse at the Sunnes going downe, and found it to bee 10 degrees from the North to the VVestward.

The seuen and twentieth, faire sun-shining weather, the winde shifting betweene the South-west, and West and by North, a stiffe gale, we stood to the Southward all day, and made our way South and by West, seuen and twentie leagues. At noone, our height was 42 degrees 50 minutes. At foure of the clocke in the after-noone, wee cast about to the Northward. At eight of the clocke, wee tooke in our top-sayles and our fore-bonnet, and went with a short sayle all night.

The eight and twentieth, very thicke and mystie, and a stiffe gale of wind, varying betweene South South-west, and South-west and by VVest; wee made our way North-west and by VVest, seuen and twentie leagues, wee sounded many times and could get no ground. At fiue of the clocke, we cast about to the Southward, the wind at South-west and by VVest. At which time we sounded, and had ground at seuentie fiue fathoms. At eight, wee had sixtie fiue fathoms. At ten, sixtie. At twelve of the clocke at mid-night, fiftie sixe fathoms, gray sand. The Compasse varyed 6 degrees the North point to the VVest.

The nine and twentieth, faire weather, we stood to the Southward, and made our way South and by VVest a point South, eighteene leagues. At noone, we found our height to bee 42 degrees 56 minutes, wee sounded oft, and had these 60. 64, 65. 67. 65. 65. 70 and 75 fathoms. At night, wee tryed the variation of our Compasse by the setting of the Sunne, and found that it went downe 37 degrees to the North-ward of the VVest, and

[40] *Van Meteren:* "So they left that place on the 26th of July and kept out at sea."
De Laet: "Sailing hence, they bent their course to the south,"

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should haue gone downe but 31 degrees. The Compasse varyed 5 and a halfe degrees.

The thirtieth, very hot, all the fore-part of the day calme, the wind at South South-east, wee steered away VVest South-west and sounded many times, and could find no ground at one hundred and seuentie fathomes. VVe found a great current and many ouer-falls. Our current had deceiued vs. For at noone we found our height to be 41 degrees 34 minutes. And the current had heaued vs to the Southward foureteene leagues. At eight of the clocke at night, I sounded and had ground in fiftie two fathomes. In the end of the mid-night watch, wee had fiftie three fathomes. This last obseruation is not to be trusted.

The one and thirtieth, very thicke and mystie all day, vntill tenne of the clocke. At night the wind came to the South, and South-west and South. We made our way West North-west nineteene leagues. Wee sounded many times, and had difference of soundings, sometimes little stones, and sometimes grosse gray sand, fiftie sixe, fiftie foure, fortie eight, fortie seuen, fortie foure, fortie sixe, fiftie fathomes; and at eight of the clocke at night it fell calme, and we had fiftie fathomes. And at ten of the clocke we head a great Rut, like the Rut of the Shoare. Then I sounded and found the former Depth; and mistrusting a current, seeing it so still that the ship made no way, I let the lead lie on the ground, and found a tide set to the South-west, and South-west by West, so fast, that I could hardly vere the Line so fast, and presently came an hurling current, or tyde with ouerfals, which cast our ship round; and the Lead was so fast in the ground, that I feared the Lines breaking, and we had no more but that. At mid-night I sounded againe, and we had seuentie fiue fathomes; and the strong streame had left vs.

The first of August, all the fore-part of the day was mystie, and at noone it cleered vp. We found that our height was 41 degrees 45 minutes, and we had gone nineteene leagues. The after-noon was reasonable cleere. We found a rustling tide or current, with many ouer-fals to continue still, and our water to change colour, and our sea to bee very deepe, for wee found no ground in one hundred fathomes. The night was cleere, and the winde came to the North, and North North-east, we steered West.

The second, very faire weather and hot: from the morning till noone we had a gale of wind, but in the after-noone little wind.

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At noone I sounded and had one hundred and ten fathomes; and our height was 41 degrees 56 minutes. And wee had runne foure and twentie leagues and an halfe. At the Sun-setting we obserued the variation of the Compasse, and found that it was come to his true place. At eight of the clocke the gale increased, so wee ranne sixe leagues that watch, and had a very faire and cleere night.

The third, very hot weather. In the morning, we had sight of the Land, and steered in with it, thinking to goe to the Northward of it. So we sent our Shallop with fiue men, to sound in by the shore; and they found it deepe fiue fathomes within a Bow-shot of the shoare; and they went on Land,[41] and found goodly Grapes, and Rose trees, and brought them aboord with them, at fiue of the clocke in the Eeuening. We had seuen and twentie fathomes within two miles of the shoare; and we found a floud come from the South-east, and an ebbe from the North-west, with a very stronge streame, and a great hurling and noyses. At eight of the clocke at night, the wind began to blow a fresh gale, and continued all night but variable. Our sounding that wee had to the Land, was one hundred, eightie, seuentie foure, fiftie two, fortie sixe, twentie nine, twentie seuen, twentie foure, nineteene, seuenteene, sometimes Oze, and sometimes gray sand.

The fourth, was very hot: we stood to the North-west two watches, and one South in for the Land, and came to an Anchor at the Norther end of the Headland, and heard the voyce of men call. Then we sent our Boat on shoare, thinking they had beene some Christians left on the Land; but wee found them to bee Sauages, which seemed very glad of our comming. So wee brought one aboord with vs, and gaue him meate, and he did eate and drinke with vs. Our Master gaue him three or foure glasse Buttons, and sent him on Land with our shallop againe. And at our Boats comming from the shoare he leapt and danced, and held vp his hands, and pointed vs to a riuer on the other side:

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[41] *Van Meteren:* "till the 3d of August, when they came near the coast, in 42° of latitude. Thence they sailed on."

De Laet: "until running south south-west and south-west by south, they again made land in latitude 41° 43′ which they supposed to be an island and gave it the name New Holland, but afterward discovered that it was Cape Cod, and that according to their observation, it lay fully seventy-five leagues to the west of its place on all the charts." [See Juet's Journal for August 6th. Juet located Cape Cod in 40° 10′, which is wrong. De Laet, with Hudson's own Journal before him, located it in 41° 43′, which is correct. See page 283, *ante.*]

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for we had made signes that we came to fish there. The bodie of this Headland lyeth in 41 degrees 45 minutes. We set sayle againe after dinner, thinking to haue got to the Westward of this Headland, but could not; so we beare vp to the Southward of it, and made a South-east way, and the Souther point did beare West at eight of the clocke at night. Our soundings about the Easter and Norther part of this Headland, a league from the shoare are these: at the Easterside thirtie, twentie seuen, twentie seuen, twentie foure, twentie fiue, twentie. The North-east point 17 degrees 18 minutes, and so deeper. The North-end of this Headland, hard by the shoare thirtie fathomes; and three leagues off North North-west, one hundred fathomes. At the South-east part a league off fifteene, sixteene, and seuenteene fathomes. The people haue greene Tobacco, and pipes, the boles whereof are made of Earth, and the pipes of red Copper. The Land is very sweet.

The fift, all mystie. At eight of the clocke in the morning, wee tact about to the Westward, and stood in till foure of the clocke in the after-noone; at which time it cleered, and wee had sight of the Head-land againe fiue leagues from vs. The Souther point of it did beare West off vs: and we sounded many times, and had no ground. And at foure of the clocke we cast about, and at our staying wee had seuentie fathomes. Wee steered away South and South by East all night, and could get no ground at seuentie and eightie fathomes. For wee feared a great Riffe, that lyeth off the Land, and steered away South and by East.

The sixth, faire weather, but many times mysting. Wee steered away South South-east, till eight of the clocke in the morning; Then it cleered a little, and wee cast about to the Westward. Then we sounded and had thirtie fathomes, grosse sand, and were come to the Riffe. Then we kept our Lead, and had quicke shoalding, from thirtie, twentie nine, twentie seuen, twentie foure, twentie two, twentie and an halfe, twentie, twentie, nineteene, nineteene, nineteene, eighteene, eighteene, seuenteene; and so deeping againe as proportionally as it shoalded. For we steered South and South-east till we came to twentie sixe fathomes. Then we steered South-west for so the tyde doth set. By and by it being calme we tryed by our Lead; for you shall haue sixteene or seuenteene fathomes, and the next cast but seuen or six fathomes. And farther to the Westward you shall haue foure

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and fiue foot water, and see Rockes vnder you, and you shall see the Land in the top. Vpon this Riffe we had an obseruation, and found that it lyeth in 40 degrees 10 minutes. And this is that Headland which Captaine Bartholomew Gosnold discouered in the yeere 1602, and called Cape Cod; because of the store of Cod-fish that hee found there-about. So we steered South-west three leagues, and had twentie, and twentie foure fathomes. Then we steered West two Glasses halfe a league, and came to fifteene fathomes. Then we steered off South-east foure Glasses, but could not get deepe water; for there the tyde of ebbe laid vs on; and the streame did hurle so, that it laid vs so neere the breach of a shoald, that wee were forced to Anchor. So at seuen of the clocke at night, wee were at an Anchor in tenne fathomes: And, I giue God most heartie thankes, the least water wee had was seuen fathomes and an halfe. We rode still all night, and at a still water I sounded so farre round about our ship as we could see a light; and had no lesse than eight, nine, ten, and eleuen fathomes: The myst continued being very thicke.

The seuenth, faire weather and hot, but mystie. Wee rode still hoping it would cleere, but on the floud it fell calme and thicke. So we rode still all day and all night. The floud commeth from the South-west, and riseth not aboue one fathome and an halfe in nepe streames. Toward night it cleered, and I went with our shallop and sounded, and found no lesse water then eight fathomes to the South-east off vs; but we saw to the North-west off vs great Breaches.

The eight, faire and cleere weather. In the morning, by sixe of the clocke at slake water wee weighed; the wind at North-east, and set our fore-sayle and mayne top-sayle, and got a mile ouer the Flats. Then the tyde of ebbe came, so we anchored againe till the floud came. Then wee set sayle againe, and by the great mercie of God, wee got cleere off them by one of the clocke this afternoone. And wee had sight of the Land from the West North-west, to the North North-west. So we steered away South South-east all night; and had ground vntill the middle of the third watch. Then we had fortie fiue fathomes, white sand, and little stones. So all our soundings are twentie, twentie two, twentie seuen, thirtie two, fortie three, fortie three, fortie fiue. Then no ground in seuentie fathomes.

[August.]

The ninth, very faire and hot weather, the wind a very stiffe gale. In the morning, at foure of the clocke, our shallop came running vp against our sterne, and split in all her stemme; So we were faine to cut her away. Then wee tooke in our mayne sayle, and lay atrie vnder our fore-sayle vntill twelue of the clocke at mid-day. Then the wind ceased to a faire gale, so wee stood away South-west. Then we lay close by, on many courses a South by West way fifteene leagues; and three watches South-east by East, ten leagues. At eight of the clocke at night, wee tooke in our top-sayles, and went with a low sayle; because we were in an vnknowne sea. At noone we obserued and found our heigth to be 38 degrees 39 minutes.

The tenth, in the morning some raine and cloudie weather: the winde at South-west, wee made our way South-east by East, ten leagues. At noone, wee obserued and found our heigth to bee 38 degrees 39 minutes. Then wee tackt about to the Westward, the wind being at South and by East, little wind. At foure of the clocke it fell calme, and we had two Dolphines about our ship, and many small fishes. At eight of the clocke at night, wee had a small lingring gale. All night we had a great Sea out of the South-west, and another great Sea out of the North-east.

The eleuenth, all the fore-part of the day faire weather, and very hot. VVee stood to the VVest South-west till noone. Then the wind shorted, and we could lye but South-west and by South. At noone, wee found our heigth to bee 39 degrees 11 minutes. And that the current had laid vs to the Northward thirtie two minutes contrary to our expectation. At foure of the clocke in the afternoone there came a myst, which endured two hours. But wee had it faire and cleere all night after. The Compasse varied the North point to the VVest one whole point.

The twelfth, faire weather, the wind variable betweene the South-west and by South, and the North little wind. In the morning we killed an extraordinary fish, and stood to the Westward all day and all night. At noone we found our heigth to be 38 degrees 13 minutes. And the obseruation the day before was not good. This noone, we found the Compasse to vary from the North to the West ten degrees.

The thirteenth, faire weather and hot: the wind at North-east. Wee steered away West and by our Compasse two and twentie

[August.]
leagues. At noone wee found our height to bee 37 degrees 45 minutes,[42] and that our way from noone to noone was West South-west, halfe a point Southerly. The Compasse was 7 degrees and a halfe variation, from the North point to the West.

The fourteenth, faire weather, but cloudie, and a stiffe gale of wind, variable betweene North-east and South-west, wee steered away West by South, a point South all day vntill nine of the clocke at night; then it began to Thunder and Lighten, whereupon we tooke in all our sayles, and layd it a hull, and hulled away North till mid-night, a league and a halfe.

The fifteenth, very faire and hot weather, the winde at North by East. At foure of the clocke in the morning we set sayle, and stood on our course to the Westward. At noone wee found our height to bee 37 degrees 25 minutes. The after-noone proued little wind. At eight of the clocke at night, the winde came to the North, and wee steered West by North, and West North-west, and made our way West. The Compasse varyed 7 degrees from the North to the West.

The sixteenth, faire shining weather, and very hot, the wind variable betweene the North and the West, wee steered away West by North. At noone wee found our height to bee 37 degrees 6 minutes. This morning we sounded and had ground in ninetie fathomes, and in sixe Glasses running it shoalded to fiftie fathoms, and so to eight and twentie fathoms, at foure of the clocke in the after-noone. Then wee came to an Anchor, and rode till eight of the clocke at night, the wind being at South and Moone-light, we resolued to goe to the Northward to finde deeper water. So we weighed and stood to the Northward, and found the water to shoald and deepe, from eight and twentie to twentie fathomes

The seuenteenth, faire and cleere Sun-shining weather, the winde at South by West, wee steered to the Northward till foure of the clocke in the morning, then wee came to eighteene fathomes. So we Anchored vntill the Sunne arose to looke abroad for Land, for wee iudged there could not but be Land neere vs. but we could see none. Then we weighed and stood to the Westward till noone. And at eleuen of the clocke wee had sight of a low Land, with a white sandie shoare. By twelue of the clocke we were come into fiue fathomes, and Anchored; and the Land

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[42] *Van Meteren:* "till on the 12th of August they again reached shore under 37° 45′. Thence they sailed along the shore." [Juet's latitude 37° 45′ was observed on the 13th instead of 12th as stated by Van Meteren.]

[August.]

was foure leagues from vs, and wee had sight of it from the West, to the North-west by North. Our height was 37 degrees 26 minutes. Then the wind blew so stiffe a gale, and such a Sea went, that we could not weigh; so we rode there all night an hard rode.

The eighteenth, in the morning faire weather, and little winde at North North-east and North-east. At foure of the clocke in the morning, we weighed and stood into the shoare to see the deeping or shoalding of it, and finding it too deepe, wee stood in to get a rode; for wee saw as it were three Ilands. So wee turned to windward to get into a Bay, as it shewed to vs to the Westward of an Iland. For the three Ilands did beare North off vs. But toward noone the wind blew Northerly, with gusts of wind and rayne. So wee stood off into the Sea againe all night; and running off we found a Channell, wherein we had no lesse then eight, nine, ten, eleuen, and twelue fathomes water. For in comming ouer the Barre, wee had fiue, and foure fathomes and a halfe, and it lyeth fiue leagues from the shoare, and it is the Barre of Virginia. At the North end of it, it is ten leagues broad, and South and North, but deepe water from Ninetie fathoms to fiue, and foure and a halfe. The Land lyeth South and North. This is the entrance into the Kings Riuer in Virginia, where our Englishmen are. The North side of it lyeth in 37 degrees 26 minutes, you shall know when you come to shoald water or sounding; for the water will looke Greene or thicke, you shall haue ninetie and eightie fathomes, and shoalding a pace till you come to ten, eleuen, nine, eight, seuen, ten, and nine fathomes, and so to fiue, and foure fathomes and a halfe.[43]

The nineteenth, faire weather, but an hard gale of winde at the North-east, wee stood off till noone, and made our way South-east by East, two and twentie leagues. At noone we cast about to the Westward, and stood till sixe of the clocke in the afternoone, and went fiue leagues and a halfe North-west by North. Then we cast about againe to the Eastward, and stood that way till foure the next morning.

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[43] *De Laet:* "From here they fell down to 37° 15′ where they again saw land. The coast was low, running north and south; and opposite to it lay a bank or shoal, within which there was a depth of eight, nine, ten, eleven, seven and six and a half fathoms with a sandy bottom. They called this place Dry Cape." [If we have collated this passage from De Laet with the proper passage in Juet's Journal, the Dry Cape was probably Cape Charles. Hudson's latitude of 37° 15′ is more nearly correct than Juet's 37° 26′. See page 283, *ante.*]

[August.]

The twentieth, faire and cleere weather, the winde variable betweene East North-east, and North-east. At foure of the clocke in the morning, wee cast about to the Westward, and stood till noone; at which time I sounded; and had two and thirtie fathomes. Then we takt to the Eastward againe; wee found our height to bee 37 degrees 22 minutes. We stood to the Eastward all night, and had very much wind. At eight of the clocke at night we tooke off our Bonnets, and stood with small sayle.

The one and twentieth, was a sore storme of winde and rayne all day and all night, wherefore wee stood to the Eastward with a small sayle; till one of the clocke in the after-noone. Then a great Sea brake into our fore-corse and split it; so we were forced to take it from the yard and mend it; wee lay a trie with our mayne-corse all night. This night our Cat ranne crying from one side of the ship to the other, looking ouer-boord, which made vs to wonder; but we saw nothing.

The two and twentieth, stormy weather, with gusts of rayne and wind. In the morning at eight of the clocke we set our fore-corse, and stood to the Eastward vnder our fore-sayle, mayne-sayle and misen, and from noone to noone, we made our way East South-east, fourteene leagues. The night reasonable drie but cloudie, the winde variable all day and night. Our Compasse was varyed 4 degrees Westward.

The three and twentieth, very faire weather, but some Thunder in the morning, the winde variable betweene East by North. At noone we tackt about to the Northward, the winde at East by North. The after-noone very faire, the wind variable, and continued so all night. Our way we made East South-east, till noone the next day.

The foure and twentieth, faire and hot weather, with the winde variable betweene the North and the East. The after-noone variable winde. But at foure of the clocke, the wind came to the East and South-east; so wee steered away North by West, and in three Watches wee went thirteen leagues. At noone our height was 35 degrees 41 minutes, being farre off at Sea from the Land.

The fiue and twentieth, faire weather and very hot. All the morning was very calme vntill eleuen of the clocke; the wind came to South-east, and South South-east; so wee steered away North-west by North, two Watches and a halfe, and one Watch

[August.]

North-west by West, and went eighteene leagues. At noone I found our height to bee 36 degrees 20 minutes, being without sight of Land.

The sixe and twentieth, faire and hot weather, the winde variable vpon all the points of the Compasse. From two of the clocke in the morning vntill noone, wee made our way North by East, seuen leagues. In the after-noone the wind came to the North-east, and vering to the East South-east, wee steered away North-west fifteene leagues, from noone till ten of the clocke at night. At eight of the clocke at night wee sounded, and had eighteene fathomes, and were come to the Banke of Virginia, and could not see the Land. Wee kept sounding, and steered away North, and came to eight fathomes, and Anchored there; for the wind was at East South-east, so that wee could not get off. For the Coast lyeth along South South-west and North North-east. At noone our height was 37 degrees 15 minutes. And wee found that we were returned to the same place, from whence we were put off at our first seeing Land.

The seuen and twentieth, faire weather and very hot, the winde at East South-east. In the morning as soone as the Sunne was vp, wee looked out and had sight of the Land. Then wee weighed, and stood in North-west two Glasses, and found the Land to bee the place from whence wee put off first. So wee kept our loofe, and steered along the Land, and had the Banke lye all along the shoare; and we had in two leagues off the shoare, fiue, sixe, seuen, eight, nine, and ten fathomes. The Coast lyeth South South-west, and is a white Sandie shoare, and sheweth full of Bayes and Points. The streame setteth West South-west, and East North-east.[44] At sixe of the clocke at night, wee were thwart of an Harbour or Riuer, but we saw a Barre lye before it; and all within the Land to the Northward, the water ranne with many Ilands in it. At sixe of the clocke we Anchored, and sent our Boate to sound to the shoare-ward, and found no lesse then foure and a halfe, fiue, sixe, and seuen fathomes.

The eight and twentieth, faire and hot weather, the winde at South South-west. In the morning at sixe of the clocke wee

[44] *De Laet:* "Running thence to the northward, they again discovered land in latitude 38° 9′ where there was a white sandy shore, and within it a thick grove of trees full of green foliage. The direction of the coast was north north-east and south south-west for about eight leagues, then north and south for seven leagues and afterwards south-east and north-west for five leagues."

[August.]
weighed, and steered away North twelue leagues till noone, and came to the point of the Land; and being hard by the Land in fiue fathomes, on a sudden wee came into three fathomes; then we beare vp and had but ten foote water, and ioyned to the Point. Then as soone as wee were ouer, wee had fiue, sixe, seuen, eight, nine, ten, twelue and thirteene fathomes. Then wee found the Land to trend away North-west, with a great Bay and Riuers. But the Bay wee found shoald; and in the offing wee had ten fathomes, and had sight of Breaches and drie Sand. Then wee were forced to stand backe again; so we stood backe South-east by South, three leagues. And at seuen of the clocke wee Anchored in eight fathomes water; and found a Tide set to the North-west, and North North-west, and it riseth one fathome, and floweth South South-east. And he that will throughly discouer this great Bay, must haue a small Pinnasse, that must draw but foure or fiue foote water, to sound before him. At fiue in the morning wee weighed, and steered away to the Eastward on many courses, for the Norther Land is full of shoalds. Wee were among them, and once wee strooke, and wee went away; and steered away to the South-east. So wee had two, three, foure, fiue, sixe, and seuen fathomes, and so deeper and deeper.[45]

The nine and twentieth, faire weather, with some Thunder and showers, the winde shifting betweene the South-west, and the North North-west. In the morning wee weighed at the breake of day, and stood toward the Norther Land, which wee found to bee all Ilands to our sight, and great stormes from them, and are shoald three leagues off. For wee comming by them, had but seuen, sixe, fiue, foure, three, and two fathomes and a halfe, and strooke ground with our Rudder, we steered off South-west one Glasse and had fiue fathoms. Then wee steered South-east three Glasses, then wee found seuen fathomes, and steered North-

[45] *De Laet:* "They continued to run along the coast to the north until they reached a point from which the land stretched to the west and northwest, and there was a bay into which several rivers discharged. From this point land was seen to the east-north-east which they took to be an island, but it proved to be the main land and the second point of the bay in latitude 38° 54′. Standing in upon a course north-west by north they soon found themselves embayed, and, encountering many breakers, stood out again to the south-south-east. They suspected that a large river discharged into the bay, from the strength of the current that set out and caused the accumulation of sands and shoals." [This bay is Delaware bay. Hudson's latitude for Cape May is within one and one-half minutes of being correct, Cape May being in 38° 55½′]

[August.]

east by East, foure leagues, and came to twelue and thirteene fathoms. At one of the clocke, I went to the top-mast head, and set the Land, and the bodie of the Ilands, did beare North-west by North. And at foure of the clocke, wee had gone foure leagues East South-east, and North-east by East, and found but seuen fathoms, and it was calme, so we Anchored. Then I went againe to the top-mast head, to see how farre I could see Land about vs, and could see no more but the Ilands. And the Souther point of them did beare North-west by West, eight leagues off. So wee rode till midnight. Then the winde came to the North North-west, so wee waighed and set sayle.

The thirtieth, in the morning betweene twelue and one, we weighed, and stood to the Eastward, the winde at North North-west, wee steered away and made our way East South-east. From our weighing till noone, eleuen leagues. Our soundings were eight, nine, ten, eleuen, twelue and thirteene fathomes till day. Then we came to eighteene, nineteene, twentie, and to sixe and twentie fathoms by noone. Then I obserued the Sunne, and found the height to bee 39 degrees 5 minutes, and saw no Land. In the after-noone, the winde came to North by West; So wee lay close by with our fore-sayle: and our mayne-sayle, and it was little winde vntill twelue of the clocke at mid-night, then wee had a gale a little while. Then I sounded, and all the night our soundings were thirtie, and sixe and thirtie fathomes, and wee went little.

The one and thirtieth, faire weather and little wind. At sixe of the clocke in the morning we cast about to the Northward, the wind being at the North-east, little wind. At noone it fell calme, and I found the height to bee 38 degrees 39 minutes. And the streams had deceiued vs, and our sounding was eight and thirtie fathoms. In the afternoone I sounded againe, and had but thirtie fathomes. So we found that we were heaued too and fro with the streames of the Tide, both by our obseruations and our depths. From noone till foure of the clocke in the after-noone, it was calme. At sixe of the clocke wee had a little gale Southerly, and it continued all night, sometimes calme, and sometimes a gale; wee went eight leagues from noone to noone, North by East.

The first of September, faire weather, the wind variable betweene East and South, we steered away North North-west. At

[September.]
noone we found our height to bee 39 degrees 3 minutes. Wee had soundings thirtie, twentie seuen, twentie foure, and twentie two fathomes, as wee went to the Northward. At sixe of the clocke wee had one and twentie fathomes. And all the third watch till twelue of the clocke at mid-night, we had soundings one and twentie, two and twentie, eighteene, two and twentie, one and twentie, eighteene, and two and twentie fathoms, and went sixe leagues neere hand North North-west.

The second, in the morning close weather, the winde at South in the morning; from twelue vntill two of the clocke we steered North North-west, and had sounding one and twentie fathoms, and in running one Glasse we had but sixteene fathoms, then seuenteene, and so shoalder and shoalder vntill it came to twelue fathoms. We saw a great Fire, but could not see the Land, then we came to ten fathoms, whereupon we brought our tackes aboord, and stoode to the Eastward East South-east, foure Glasses. Then the Sunne arose, and we steered away North againe, and saw the Land from the West by North, to the North-west by North, all like broken Ilands, and our soundings were eleuen and ten fathoms. Then wee looft in for the shoare, and faire by the shoare, we had seuen fathoms. The course along the Land we found to be North-east by North. From the Land which we had first sight of, vntill we came to a great Lake of water, as wee could iudge it to bee, being drowned Land, which made it to rise like Ilands, which was in length ten leagues. The mouth of that Lake hath many shoalds, and the Sea breaketh on them as it is cast out of the mouth of it. And from that Lake or Bay, the Land lyeth North by East, and wee had a great streame out of the Bay; and from thence our sounding was ten fathoms, two leagues from the Land. At fiue of the clocke, we Anchored, being little winde, and rode in eight fathoms water, the night was faire. This night I found the Land to hall the Compasse 8 degrees. For to the Northward off vs we saw high Hils. For the day before we found not aboue 2 degrees of Variation. This is a very good Land to fall with, and a pleasant Land to see.[46]

[46] *De Laet:* "Continuing their course along the shore to the north, they observed a white sandy beach and drowned land within; beyond the land was full of trees, the coast running north-east by north and south-west by south. Afterwards the direction of the coast changed to north by east, and was higher land than they had yet seen."

[September.]

The third, the morning mystie vntill ten of the clocke, then it cleered, and the wind came to the South South-east, so wee weighed and stood to the Northward. The Land is very pleasant and high, and bold to fall withall. At three of the clocke in the after-noone, wee came to three great Riuers. So we stood along to the Northermost, thinking to haue gone into it, but we found it to haue a uery shoald barre before it, for we had but ten foot water. Then wee cast about to the Southward, and found two fathoms, three fathoms, and three and a quarter, till we came to the Souther side of them, then we had fiue and sixe fathoms, and Anchored. So wee sent in our Boate to sound, and they found no lesse water then foure, fiue, sixe, and seuen fathoms, and returned in an houre and a halfe. So wee weighed and went in, and rode in fiue fathoms, Oze ground, and saw many Salmons, and Mullets, and Rayes very great. The height is 40 degrees 30 minutes.[47]

The fourth, in the morning as soone as the day was light, wee saw that it was good riding farther vp. So we sent our Boate to sound, and found that it was a very good harbour; and foure and fiue fathomes, two Cables length from the shoare. Then we weighed and went in with our ship. Then our Boate went on Land with our Net to Fish, and caught ten great Mullets, of a foote and a halfe long a peece, and a Ray as great as foure men could hale into the ship. So wee trimmed our Boate and rode still all day. At night the wind blew hard at the North-west, and our Anchor came home, and wee droue on shoare, but tooke no hurt, thanked bee God, for the ground is soft sand and Oze. This day the people of the Country came aboord of vs,[48] seeming very glad of our comming, and brought greene Tabacco, and gaue vs of it for Kniues and Beads. They goe in Deere skins loose, well dressed. They haue yellow Copper. They desire Cloathes, and are very ciuill. They haue great store of Maiz or Indian Wheate, whereof they make good Bread. The Countrey is full of great and tall Oakes.

The fifth, in the morning as soone as the day was light, the wind ceased and the Flood came. So we heaued off our ship

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[47] *De Laet:* "along to a lofty promotory behind which was situated a bay where they ran up into a roadstead near a low sandy point in latitude 40° 18′."

[48] *De Laet:* "There they were visited by two savages clothed in elk-skins who showed them every sign of friendship."

[September.]
againe into fiue fathoms water, and sent our Boate to sound the Bay, and we found that there was three fathoms hard by the Souther shoare. Our men went on Land there,[49] and saw great store of Men, Women and Children, who gaue them Tabacco at their comming on Land. So they went vp into the Woods, and saw great store of very goodly Oakes, and some Currants. For one of them came aboord and brought some dryed, and gaue me some, which were sweet and good. This day many of the people came aboord, some in Mantles of Feathers, and some in skinnes of diuers sorts of good Furres. Some women also came to vs with Hempe. They had red Copper Tabacco pipes, and other things of Copper they did weare about their neckes. At night they went on Land againe, so wee rode very quiet, but durst not trust them.

The sixth, in the morning was faire weather, and our Master sent Iohn Colman, with foure other men in our Boate ouer to the North-side, to sound the other Riuer, being foure leagues from vs. They found by the way shoald water two fathoms; but at the North of the Riuer eighteen, and twentie fathoms, and very good riding for Ships; and a narrow Riuer to the Westward betweene two Ilands. The Lands they told vs were as pleasant with Grasse and Flowers, and goodly Trees, as euer they had seene, and very sweet smells came from them. So they went in two leagues and saw an open Sea, and returned; and as they came back, they were set vpon by two Canoes, the one hauing twelue, the other fourteene men. The night came on, and it began to rayne, so that their Match went out; and they had one man slaine in the fight, which was an Englishman, named Iohn Colman, with an Arrow

[49] *De Laet:* "On land they found an abundance of blue plums and the finest oaks for height and thickness that one could ever see, together with poplars, linden-trees, and various other kinds of wood useful in ship-building. . . . He [Hudson] himself describes to us the manners and appearance of the people that he found dwelling immediately within this bay in the following terms: 'When I came on shore, the swarthy natives all stood and sang in their fashion. Their clothing consisted of the skins of foxes and other animals which they dress and make the garments from skins of various sorts. Their food is Turkish wheat which they cook by baking and it is excellent eating. They soon came on board, one after another, in their canoes, which are made of a single piece of wood; their weapons are bows and arrows, pointed with sharp stones, which they fasten with hard resin. They had no houses, but slept under the blue heavens, some on mats of bulrushes interwoven, and some on the leaves of trees. They always carry with them all their goods, as well as their food and green tobacco, which is strong and good for use. They appear to be a friendly people, but have a great propensity to steal, and are exceedingly adroit in carrying away whatever they take a fancy to.'"

[September.]

shot into his throat, and two more hurt. It grew so darke that they could not find the ship that night, but labored too and fro on their Oares. They had so great a streame, that their grapnell would not hold them.

The seuenth, was faire, and by ten of the clocke they returned aboord the ship, and brought our dead man with them, whom we carried on Land and buryed, and named the point after his name, Colmans Point. Then we hoysed in our Boate, and raised her side with waste boords for defence of our men. So we rode still all night, hauing good regard to our Watch.

The eight, was very faire weather, we rode still very quietly. The people came aboord vs, and brought Tabacco and Indian Wheat, to exchange for Kniues and Beades, and offered vs no violence. So we fitting vp our Boate did mark them, to see if they would make any shew of the Death of our man; which they did not.

The ninth, faire weather. In the morning, two great Canoes came aboord full of men; the one with their Bowes and Arrowes, and the other in shew of buying of Kniues to betray vs; but we perceiued their intent. Wee tooke two of them to haue kept them, and put red Coates on them, and would not suffer the other to come neere vs. So they went on Land, and two other came aboord in a Canoe: we tooke the one and let the other goe; but hee which wee had taken, got vp and leapt ouer-boord. Then we weighed and went off into the channel of the Riuer, and Anchored there all night.

The tenth, faire weather, we rode still till twelue of the clocke. Then we weighed and went ouer, and found it shoald all the middle of the Riuer, for wee could finde but two fathoms and a halfe, and three fathomes for the space of a league; then wee came to three fathomes, and foure fathomes, and so to seuen fathomes, and Anchored, and rode all night in soft Ozie ground. The banke is Sand.

The eleuenth, was faire and very hot weather. At one of the clocke in the after-noone, wee weighed and went into the Riuer, the wind at South South-west, little winde. Our soundings were seuen, sixe, fiue, sixe, seuen, eight, nine, ten, twelue, thirteene, and fourteene fathomes. Then it shoalded againe, and came to fiue fathomes. Then wee Anchored, and saw that it was a very good Harbour for all windes, and rode all night. The people of

[September.]
the Countrey came aboord of vs, making shew of loue, and gaue vs Tabacco and Indian Wheat, and departed for that night; but we durst not trust them.

The twelfth, very faire and hot. In the afternoone at two of the clocke wee weighed, the winde being variable, betweene the North and the North-west. So we turned into the Riuer two leagues and Anchored.[50] This morning at our first rode in the Riuer, there came eight and twentie Canoes full of men, women and children to betray vs: but we saw their intent, and suffered none of them to come aboord of vs. At twelue of the clocke they departed. They brought with them Oysters and Beanes, whereof wee bought some. They haue great Tabacco pipes of yellow Copper, and Pots of Earth to dresse their meate in. It floweth South-east by South within.

The thirteenth, faire weather, the wind Northerly. At seuen of the clocke in the morning, as the floud came we weighed, and turned foure miles into the Riuer. The tide being done wee anchored. Then there came foure Canoes aboord: but we suffered none of them to come into our ship. They brought great store of very good Oysters aboord, which we bought for trifles. In the night I set the variation of the Compasse, and found it to be 13 degrees. In the after-noone we weighed, and turned in with the floud, two leagues and a halfe further, and anchored all night, and had fiue fathoms soft Ozie ground, and had an high point of Land, which shewed out to vs, bearing North by East fiue leagues off vs.

The fourteenth, in the morning being very faire weather, the wind South-east, we sayld vp the Riuer twelue leagues, and had fiue fathoms, and fiue fathoms and a quarter lesse; and came to a Streight betweene two Points, and had eight, nine, and ten fathoms: and it trended North-east by North, one league: and

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[50] *Van Meteren:* "until we (sic) reached 40° 45′, where they found a good entrance between two headlands and thus entered on the 12th of September into as fine a river as can be found, with good anchoring ground on both sides."

De Laet: "In latitude 40° 48′, where the savages brought very fine oysters to the ship, the aforesaid Hudson describes the country in the following manner: 'It is as pleasant a land as one need tread upon: very abundant in all kinds of timber suitable for shipbuilding, and for making large casks. The people had copper tobacco pipes, from which I inferred that copper must exist there; and iron likewise according to the testimony of the natives, who, however, do not understand preparing it for use.'" [Latitude 40° 48′ is off Manhattan Island opposite 100th street.]

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wee had twelue, thirteene and fourteene fathomes. The Riuer is a mile broad: there is very high Land on both sides. Then wee went vp North-west, a league and an halfe deepe water. Then North-east by North fiue miles; then North-west by North two leagues, and anchored. The Land grew very high and Mountainous. The Riuer is full of fish.

The fifteenth, in the morning was misty vntill the Sunne arose: then it cleered. So wee weighed with the wind at South, and ran vp into the Riuer twentie leagues, passing by high Mountaines. Wee had a very good depth, as sixe, seuen, eight, nine, ten, twelue, and thirteene fathoms, and great store of Salmons in the Riuer. This morning our two Sauages got out of a Port and swam away. After we were vnder sayle they called to vs in scorne. At night we came to other Mountaines, which lie from the Riuers side. There wee found very loving people, and very old men: where wee were well vsed. Our Boat went to fish, and caught great store of very good fish.[51]

The sixteenth, faire and very hot weather. In the morning our Boate went againe to fishing, but could catch but few, by reason their Canoes had beene there all night. This morning the people came aboord, and brought vs eares of Indian Corne, and Pompions, and Tabacco: which wee bought for trifles. Wee rode still all day, and filled fresh water; at night wee weighed and went two leagues higher, and had shoald water: so wee anchored till day.

The seuenteenth, faire Sun-shining weather, and very hot. In the morning as soone as the Sun was vp, we set sayle, and ran vp sixe leagues higher, and found shoalds in the middle of the channell, and small Ilands, but seuen fathoms water on both sides. Toward night we borrowed so neere the shoare, that we grounded: so we layed out our small anchor, and heaued off againe. Then we borrowed on the banke in the channell, and came aground againe; while the floud ran we heaued off againe, and anchored all night.

The eighteenth, in the morning was faire weather, and we rode still. In the after-noone our Masters Mate went on land with an

[51] *De Laet:* "Hudson also states that they caught in the river all kinds of fresh-water fish with seines, and young salmon and sturgeon."

[September.]
old Sauage, a Gouernor of the Countrey; who carried him to his house, and made him good cheere.[52]

The nineteenth, was faire and hot weather: at the floud being neere eleuen of the clocke, wee weighed, and ran higher vp two leagues aboue the Shoalds, and had no lesse water than fiue fathoms: wee anchored, and rode in eight fathoms. The people of the Countrie came flocking aboord, and brought vs Grapes, and Pompions, which wee bought for trifles. And many brought vs Beuer skinnes, and Otters skinnes, which wee bought for Beades, Kniues, and Hatchets. So we rode there all night.[53]

The twentieth, in the morning was faire weather. Our Masters Mate with foure men more went vp with our Boat to sound the Riuer,[54] and found two leagues aboue vs but two fathomes water, and the channell very narrow; and aboue that place seuen or eight fathomes. Toward night they returned: and we rode still all night.

The one and twentieth, was faire weather, and the wind all Southerly: we determined yet once more to go farther vp into the Riuer, to trie what depth and breadth it did beare; but much people resorted aboord, so wee went not this day. Our Carpenter went on land, and made a Fore-yard. And our Master and his

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52 *De Laet:* "In latitude 42° 18′ the said Hudson landed. He says: 'I sailed to the shore, in one of their canoes, with an old man, who was the chief of a tribe, consisting of forty men and seventeen women; these I saw there in a house well constructed of oak bark, and circular in shape, with the appearance of having a vaulted ceiling. It contained a great quantity of maize and beans of the last year's growth, and there lay near the house for the purpose of drying enough to load three ships, besides what was growing in the fields. On our coming into the house, two mats were spread out to sit upon, and immediately some food was served in well made red wooden bowls; two men were also despatched at once with bows and arrows in quest of game, who soon after brought in a pair of pigeons which they had shot. They likewise killed at once a fat dog, and skinned it in great haste, with shells which they get out of the water. They supposed that I would remain with them for the night, but I returned after a short time on board the ship. The land is the finest for cultivation that I ever in my life set foot upon, and it also abounds in trees of every description. 'The natives are a very good people: for, when they saw that I would not remain, they supposed that I was afraid of their bows, and taking the arrows, they broke them in pieces, and threw them into the fire,' etc. They found there also vines and grapes, pumpkins, and other fruits. From all these things there is sufficient reason to conclude that it is a pleasant and fruitful country, and that the natives are well disposed, if they are only well treated: although they are very changeable, and of the same general character as all the savages in the north." [Latitude 42° 18′ is about three miles north of the city of Hudson and about half a mile south of the mouth of Stockport creek.]

53 *Van Meteren:* "Their ship finally sailed up the river as far as 42° 40′." [The parallel of 42° 40′ crosses Patroon Lower Island at Albany.]

De Laet: "Sailing hence" [that is, from New York bay] "in a northeasterly direction, they ascended the river to nearly 43° north latitude."

54 *Van Meteren:* "But their boat went higher up."

[September.]

Mate determined to trie some of the chiefe men of the Countrey, whether they had any treacherie in them. So they tooke them downe into the Cabbin, and gaue them so much Wine and Aqua vitae, that they were all merrie: and one of them had his wife with him, which sate so modestly, as any of our Countrey women would doe in a strange place. In the end one of them was drunke, which had been aboord of our ship all the time that we had beene there: and that was strange to them; for they could not tell how to take it. The Canoes and folke went all on shoare: but some of them came againe, and brought stropes of Beades: some had sixe, seuen, eight, nine, ten; and gaue him. So he slept all night quietly.

The two and twentieth, was faire weather: in the morning our Masters Mate and foure more of the companie went vp with our Boat to sound the Riuer higher vp. The people of the Countrey came not aboord till noone: but when they came, and saw the Sauages well, they were glad. So at three of the clocke in the after-noone they came aboord, and brought Tabacco, and more Beades, and gaue them to our Master, and made an Oration, and shewed him all the Countrey round about. Then they sent one of their companie on land, who presently returned, and brought a great Platter full of Venison, dressed by themselues; and they caused him to eate with them: then they made him reuerence, and departed all saue the old man that lay aboord. This night at ten of the clocke, our Boate returned in a showre of raine from sounding of the Riuer; and found it to bee at an end for shipping to goe in. For they had beene vp eight or nine leagues, and found but seuen foot water, and vnconstant soundings.

The three and twentieth, faire weather. At twelue of the clocke wee weighed, and went downe two leagues[55] to a shoald that had two channels, one on the one side, and another on the other, and had little wind, whereby the tide layed vs vpon it. So, there we sate on ground the space of an houre till the floud came. Then wee had a little gale of wind at the West. So wee got our ship into deepe water, and rode all night very well.

The foure and twentieth was faire weather: the winde at the North-west, wee weighed, and went downe the Riuer seuen or eight leagues; and at halfe ebbe wee came on ground on a banke

[55] *De Laet:* "where it became so narrow and of so little depth that they found it necessary to return."

[September.]
of Oze in the middle of the Riuer, and sate there till the floud. Then wee went on Land, and gathered good store of Chest-nuts. At ten of the clocke wee came off into deepe water, and anchored.

The fiue and twentieth was faire weather, and the wind at South a stiffe gale. We rode still, and went on Land to walke on the West side of the Riuer, and found good ground for Corne, and other Garden herbs, with great store of goodly Oakes, and Walnut trees, and Chest-nut trees, Ewe trees, and trees of sweet wood in great abundance, and great store of Slate for houses, and other good stones.

The sixe and twentieth was faire weather, and the wind at South a stiffe gale, wee rode still. In the morning our Carpenter went on Land with our Masters Mate, and foure more of our companie to cut wood. This morning, two Canoes came vp the Riuer from the place where we first found louing people, and in one of them was the old man that had lyen aboord of vs at the other place. He brought another old man with him, which brought more stropes of Beades, and gaue them to our Master, and shewed him all the Countrey there about, as though it were at his command. So he made the two old men dine with him, and the old mans wife: for they brought two old women, and two young maidens of the age of sixteene or seuenteene yeeres with them, who behaued themselues very modestly. Our Master gaue one of the old men a Knife, and they gaue him and vs Tabacco. And at one of the clocke they departed down the Riuer, making signes that wee should come down to them; for wee were within two leagues of the place where they dwelt.

The seuen and twentieth, in the morning was faire weather, but much wind at the North, we weighed and set our fore top-sayle, and our ship would not flat, but ran on the Ozie banke at halfe ebbe. Wee layed out anchor to heaue her off, but could not. So wee sate from halfe ebbe to halfe floud: then we set our fore-sayle and mayne top-sayle, and got downe sixe leagues. The old man came aboord, and would haue had vs anchor, and goe on Land to eate with him: but the wind being faire, we could not yeeld to his request; So hee left vs, being very sorrowfull for our departure. At fiue of the clocke in the after-noone, the wind came to the South South-west. So wee made a boord or two, and anchored in fourteene fathomes water. Then our Boat went on

[September.]

shoare to fish right against the ship. Our Masters Mate and Boat-swaine, and three more of the companie went on land to fish, but could not finde a good place. They tooke foure or fiue and twentie Mullets, Breames, Bases, and Barbils; and returned in an houre. We rode still all night.

The eight and twentieth, being faire weather, as soone as the day was light, wee weighed at halfe ebbe, and turned downe two leagues belowe water; for, the streame doth runne the last quarter ebbe: then we anchored till high water. At three of the clocke in the after-noone we weighed, and turned downe three leagues, vntill it was darke: then wee anchored.

The nine and twentieth was drie close weather: the wind at South, and South and by West, we weighed early in the morning, and turned downe three leagues by a lowe water, and anchored at the lower end of the long Reach; for it is sixe leagues long. Then there came certaine Indians in a Canoe to vs, but would not come aboord. After dinner there came the Canoe with other men, whereof three came aboord vs. They brought Indian Wheat, which wee bought for trifles. At three of the clocke in the after-noone wee weighed, as soone as the ebbe came, and turned downe to the edge of the Mountaines, or the Northermost of the Mountaines, and anchored: because the high Land hath many Points, and a narrow channell, and hath many eddie winds. So we rode quietly all night in seuen fathoms water.

The thirtieth was faire weather, and the wind at South-east a stiffe gale betweene the Mountaynes. We rode still the after-noone. The people of the Countrey came aboord vs, and brought some small skinnes with them, which we bought for Kniues and Trifles. This a very pleasant place to build a Towne on. The Road is very neere, and very good for all winds, saue an East North-east wind. The Mountaynes looke as if some Metall or Minerall were in them. For the Trees that grow on them were all blasted, and some of them barren with few or no Trees on them. The people brought a stone aboord like to Emery (a stone vsed by Glasiers to cut Glasse) it would cut Iron or Steele: Yet being bruised small, and water put to it, it made a colour like blacke Lead glistening; It is also good for Painters Colours. At three of the clocke they departed, and we rode still all night.

The first of October, faire weather, the wind variable betweene the West and the North. In the morning we weighed at seuen of

[October.]
the clocke with the ebbe, and got downe below the Mountaynes, which was seuen leagues. Then it fell calme and the floud was come, and wee anchored at twelue of the clocke. The people of the Mountaynes came aboord vs, wondring at our ship and weapons. We bought some small skinnes of them for Trifles. This afternoone, one Canoe kept hanging vnder our sterne with one man in it, which we could not keepe from thence, who got vp by our Rudder to the Cabin window, and stole out my Pillow, and two Shirts, and two Bandeleeres. Our Masters Mate shot at him, and strooke him on the brest, and killed him. Whereupon all the rest fled away, some in their Canoes, and so leapt out of them into the water. We manned our Boate, and got our things againe. Then one of them that swamme got hold of our Boat, thinking to ouerthrow it. But our Cooke tooke a Sword, and cut off one of his hands, and he was drowned. By this time the ebbe was come, and we weighed and got downe two leagues, by that time it was darke. So we anchored in foure fathomes water, and rode well.

The second, faire weather. At break of day wee weighed, the wind being at North-west, and got downe seuen leagues; then the floud was come strong, so we anchored. Then came one of the Sauages that swamme away from vs at our going vp the Riuer with many other, thinking to betray vs. But wee perceiued their intent, and suffered none of them to enter our ship. Whereupon two Canoes full of men, with their Bowes and Arrowes shot at vs after our sterne: in recompense whereof we discharged sixe Muskets, and killed two or three of them. Then aboue an hundred of them came to a point of Land to shoot at vs. There I shot a Falcon at them, and killed two of them: whereupon the rest fled into the Woods. Yet they manned off another Canoe with nine or ten men, which came to meet vs. So I shot at it also a Falcon, and shot it through, and killed one of them. Then our men with their Muskets, killed three or foure more of them. So they went their way, within a while after, wee got downe two leagues beyond that place, and anchored in a Bay, cleere from all danger of them on the other side of the Riuer, where we saw a very good piece of ground: and hard by it there was a Cliffe, that looked of the colour of a white greene, as though it were either Copper, or Siluer Myne: and I thinke it to be one of them, by

[October.]

the Trees that grow vpon it. For they be all burned, and the other places are greene as grasse, it is on that side of the Riuer that is called Manna-hata. There we saw no people to trouble vs: and rode quietly all night; but had much wind and raine.

The third, was very stormie; the wind at East North-east. In the morning, in a gust of wind and raine our Anchor came home, and we droue on ground, but it was Ozie. Then as we were about to haue out an Anchor, the wind came to the North North-west, and droue vs off againe. Then we shot an Anchor, and let it fall in foure fathomes water, and weighed the other. Wee had much wind and raine, with thicke weather: so we rode still all night.

The fourth, was faire weather, and the wind at North North-west, wee weighed and came out of the Riuer, into which we had runne so farre. Within a while after, wee came out also of The great mouth of the great Riuer, that runneth vp to the North-west, borrowing vpon the Norther side of the same, thinking to haue deepe water; for wee had sounded a great way with our Boat at our first going in, and found seuen, sixe and fiue fathomes. So we came out that way, but we were deceiued, for we had but eight foot and an halfe water: and so to three, fiue, three, and two fathomes and an halfe. And then three, foure, fiue, sixe, seuen, eight, nine and ten fathomes. And by twelue of the clocke we were cleere of all the inlet. Then we tooke in our Boat, and set our mayne-sayle and sprit-sayle, and our top-sayles, and steered away East South-east, and South-east by East off into the mayne sea: and the Land on the Souther-side of the Bay or Inlet, did beare at noone West and by South foure leagues from vs.[56]

The fift, was faire weather, and the wind variable betweene the North and the East. Wee held on our course South-east by East. At noone I obserued and found our height to bee 39 de-

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56 *Van Meteren:* "When they had thus been about fifty leagues up the river, they returned on the 4th of October and went again to sea. More could have been done if there had been good-will among the crew and if the want of some necessary provisions had not prevented it. . . . In the lower part of the river they found strong and warlike people; but in the upper part they found friendly and polite people who had an abundance of provisions, skins and furs of martens and foxes and many other commodities, as birds and fruit, even white and red grapes. These Indians traded most amicably with the people from the ship. And of all the above mentioned commodities they brought some home."

De Laet: "From all they could learn, there had never been any ships or Christians in that quarter before, and they were the first to discover the river and ascend it so far. . . . Henry Hudson who first discovered this river and all that have since visited it express their admiration of the noble trees growing upon its banks."

[October.]
grees 30 minutes. Our Compasse varied sixe degrees to the West.[57] We continued our course toward England, without seeing any Land by the way, all the rest of this moneth of October: And on the *seuenth day of Nouember,* stilo nouo, being Saturday; by the Grace of God we safely arriued in the Range of Dartmouth in Deuonshire, in the yeere 1609.[58]

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[57] *Van Meteren:* "While at sea, they held counsel together but were of different opinions. The mate, a Dutchman, advised to winter in Newfoundland and to search the northwestern passage of Davis throughout. This was opposed by Skipper Hudson. He was afraid of his mutinous crew, who had sometimes savagely threatened him; and he feared that during the cold season they would entirely consume their provisions, and would then be obliged to return. Many of the crew, also, were ill and sickly. Nobody, however, spoke of returning home to Holland, which circumstance made the captain still more suspicious. He proposed, therefore, to sail to Ireland, and winter there, which they all agreed to."

[58] *Van Meteren:* "At last they arrived at Dartmouth, in England, the 7th of November, whence they informed their employers, the Directors in Holland, of their voyage. They proposed to them to go out again for a search in the northwest, and that, besides the pay, fifteen hundred florins should be laid out for an additional supply of provisions. He also wanted six or seven of his crew exchanged for others, and their number raised to twenty. He would then sail from Dartmouth on the 1st of March, so as to be in the north-west towards the end of that month, and there to spend the whole of April and the first half of May in catching whales and other fish in the neighbourhood of Panar Island, thence to sail to the north-west, and there to pass the time till the middle of September, and then to return to Holland along the north-eastern coast of Scotland. Thus this voyage ended. A long time elapsed, through contrary winds, before the company could be informed of the arrival of the ship in England. Then they ordered the ship and crew to return as soon as possible. But, when they were going to do so, Skipper Henry Hudson and the other Englishmen of the ship were commanded by government there not to leave England, but to serve their own country. Many persons thought it strange that these sailors should thus be prevented from laying their accounts and reports before their employers, chiefly as the enterprise in which they had been engaged was such as to benefit navigation in general. This took place in January, 1610; and it was then thought probable that the English themselves would send ships to Virginia, to explore further the aforesaid river."

De Laet: "Henry Hudson returned to Amsterdam with his report and in the following year, 1610, some merchants again sent a ship thither — that is to say, to the second river discovered which was called Manhattes from the savage nation that dwelt at its mouth."

APPENDIX C.

PROCEEDINGS AT THE DEDICATION OF THE FORT TRYON TABLET IN NEW YORK CITY, SEPTEMBER 29, 1909.

DEDICATION OF THE FORT TRYON TABLET.

As stated on page 46 of this report, the American Scenic and Historic Preservation Society was enabled, by the generosity of Mr. Cornelius K. G. Billings and with the valuable co-operation of Mr. William C. Muschenheim, to erect a monumental tablet on the site of Fort Tryon, in New York city, as one of the Society's contributions to the Hudson-Fulton Celebration in 1909. The tablet is erected upon the face of the living rock on the west side of Fort Washington avenue, six-tenths of a mile north of the Fort Washington monument. The latter is in the line of 183d street if projected. We are indebted to our fellow, Trustee, Mr. Reginald P. Bolton, for some of the details of the history of Fort Tryon. The fortification of this commanding height was undertaken by the American forces in the summer of 1776, and the earthworks which crowned the summit of this part of Mount Washington, locally known as "Forest Hill," formed the northerly out-work of Fort Washington. The character of the hill and the nature of its natural defenses, which were supplemented by abattis of felled trees, made this position exceedingly strong from a military point of view, had it been adequately provided with artillery. It was, however, equipped with only three small six-pounder cannon, and on the occasion of its defense on the 16th of November, 1776, it was manned by a battalion of Virginia and Maryland soldiers, about 600 in number, the survivors of the two Southern regiments which took part in the battle of Brooklyn, commanded by Col. Moses Rawlings.

The attack which was made upon the fort was conducted by Baron Wilhelm Knyphausen, leading personally, with much gallantry, the Hessian division of about 4,600 men, with a battery of howitzers. This force advanced across the Dyckman meadows and directly assaulted the fort, making three

successive charges at the point of the bayonet. The accurate and incessant firing of the Southerners ensconsed behind rock and trees defeated two of these attacks and stayed the advance of the entire operations against Fort Washington until the fort was taken in flank on the Hudson side by a detachment from the Hessian forces under the redoubtable Colonel Rall, just at the time when the commander of the fort, as well as his major, Otho Holland Williams, fell wounded. The final charge of the Grenadiers of the von Koehler battalion, under Colonel Rall's personal leadership, resulted in a butchery of the garrison by the bayonets of the Hessian soldiery, which was witnessed by Washington himself, who stood on the brink of the Palisades anxiously watching the progress of this part of the defense of Fort Washington. The Hessians as well as the Americans suffered severe losses, particularly among their officers, of whom several of high rank were killed, and were buried, with many private soldiers, around the neighborhood of the fort.

After its capture, the fort was renamed Fort Tryon, in honor of the last British Governor of the Province of New York. The fort was strengthened and enlarged into a six-gun battery, and the earthworks, of which a few remains may still be seen, are probably the remaining evidence of this work which was largely carried out by men of the Hessian royal body guard and of the von Donop regiment.

The Memorial at Fort Tryon commemorates, in particular, the heroism of the first woman who took an active part in actual warfare in defense of American liberties. Margaret or Margery Corbin was the wife of John Corbin, a private soldier of York county, Pa. He was probably of Scotch-Irish descent. She accompanied her husband in 1776 and shared with him the privations of his life as an artilleryman. On the occasion of the assault and defense of the northern outwork of Fort Washington, she was aiding her husband in the loading and cleaning of one of the guns, when at the most critical part of one of the assaults, John Corbin was killed. Margaret immediately took charge of

the cannon and loaded and fired it herself, with conspicuous "skill and vigor," until she in turn was also wounded by grape-shot from the Hessian field battery. She was afterward specially mentioned by Congress. She recovered and lived as a pensioner of the United States until about the end of the century.

The Fort Tryon tablet, which was designed by Mr. Charles R. Lamb, and erected by J. & R. Lamb of New York, cost $5,000. It is about 9 feet wide and 12 feet high, and is built of black polished granite from Maine, embellished with bronze-work and a cannon. The latter is a real piece of ordnance, known as a French gun, which was obtained from the United States arsenal at Watervliet. The tablet bears the following inscription:

1776. Hudson-Fulton Celebration Commission. 1909.
On this Hilltop Stood
Fort Tryon
The Northern Out-work of
Fort Washington
Its Gallant Defence Against
The Hessian Troops
by
The Maryland and Virginia
Regiment
16 November 1776
was shared by
Margaret Corbin
The First American Woman
to take a Soldier's Part
in the War for Liberty.
Erected Under the Auspices of
The American Scenic and Historic
Preservation Society
Through the Generosity of
C. K. G. Billings

The tablet was dedicated with impressive ceremonies on Wednesday, September 29, 1909. The scene was rendered picturesque by the presence of a group of Iroquois Indians, who gave their

ceremonial "Feather Dance." The programme of exercises was as follows:

George F. Kunz, Ph. D., Sc. D., President of the American Scenic and Historic Preservation Society, Presiding.
Invocation: Rev. Frank Oliver Hall, D. D., Chaplain-General, National Society Sons of the American Revolution.
Address: "Purpose of the Tablet." Dr. George F. Kunz, President, American Scenic and Historic Preservation Society.
Address: Presentation of the Tablet on behalf of the Donor. Col. Daniel Appleton.
Unveiling of the Tablet: Miss Blanche Pauline Billings, escorted by Mr. Albert M. Billings Ruddock.
Salute by a detachment of the First Battery Field Artillery, N. G. N. Y.
Address: "The History of Fort Tryon." Mr. Reginald Pelham Bolton.
Address: "Margaret Corbin, the Heroine," Mrs. William Cumming Story, Chairman of the Hudson-Fulton Committee, Daughters of the American Revolution.
Address: "The American Woman in Peace and War." Miss Helen Varick Boswell, National Federation of Women's Clubs.
Song: "America." The Audience.
Benediction: Rev. Milo H. Gates, Chaplain, Washington Heights Chapter D. A. R.

Address by George Frederick Kunz, Ph. D., Sc. D.

Dr Kunz, in opening the proceedings, spoke as follows:

Ladies and Gentlemen: On this quiet spot, which has changed but little from the time when the white man first landed on Manhattan Island, we are assembled to-day to give honor to those who, one hundred and thirty-three years ago, stood shoulder to shoulder in defense of the liberty of their native land. This tablet, erected through the generosity of Mr. Cornelius K. G. Billings, will take its place among the other memorials dedicated to the heroes of the past.

There is a deep-rooted sentiment in the human heart which urges us to honor those who have done noble deeds of valor or generosity, and this is both right and fitting, for the spirit of a

Fort Tryon Monument, New York.

See Page 351.

good deed lives on in the memory of after generations and inspires them to higher and ever higher effort.

Although none of us here present may ever be called upon to take up arms in defense of our country as did the heroes of the Revolution and those of our other wars, nevertheless we all have to fight the battle of life, to combat error and wickedness and to strive for truth and goodness, and this battle is often the hardest to fight.

In Russia, on the spot where a human life is lost, a small cross is erected and all who pass by, even thieves and other criminals, cross themselves devoutly. This tribute of the living to the dead is just and proper; but are not far deeper feelings aroused when we stand on the spot where brave men, whose example is an inspiration for ages, have laid down their lives, willingly and gladly, for the success of a great and pure cause? Such a spot is hallowed ground, and we feel as though the spirits of those who have gone still linger here, for nowhere else is the reality of their sacrifice brought home to us so vividly.

The defense of Fort Tryon was signalized by an act of bravery that should especially appeal to the progressive American women of our day. When Margaret Corbin stood by the gun alongside of which her husband was shot down and took his place in the ranks of the defenders, to be wounded herself, she was unconsciously setting an example for the women of a later time. For though oratory and argument are the weapons used in the political arena, the same quality of dauntless courage is requisite to gain the day, and perhaps some of our sisters who are standing fearlessly by argumentative guns may in time be considered as heroic in their own way as was Margaret Corbin.

This memorial has a firm foundation, for it rests upon the geologically oldest ridge of the world. Manhattan Island, now the heart and center of the second largest city in the world, has natural advantages peculiarly fitting it for its proud destiny. Washed on all sides by tide-water, surrounded by such great and beautiful rivers, the primitive rock covered by a sandy soil, the geological conditions are most favorable for the health, the well-being, and the commercial prosperity of the inhabitants. Hence it need not surprise us that, quiet and peaceful as is still this northern end of the island, to the south and across the East river there is a population of three and a half million, while the whole

great territory of our city embraces a population of upwards of four millions.

Was there ever a more beautiful island than this, as Henry Hudson first saw it? Its sloping shores, its low and pleasing hills, its ponds and streams, all combined to make an ideal picture of tranquil beauty. But how the hand of man has changed it! The hills have been leveled, the water courses and depressions have been filled in, and hundreds of miles of streets have been laid out with geometrical precision. No one, a century ago, even in the wildest flight of his imagination, would have dared to predict that so mighty a city, with its great structures and its unrivalled facilities for transit, would develop on this island and its vicinity.

Last Saturday fully four, and perhaps five million citizens and visitors saw the greatest naval pageant that has ever taken place on a river near a great city. But in gazing on the imposing array of seventy warships, seven hundred merchant vessels and many hundred smaller craft, we noted that there was room for ten times as many, without risk of confusion or congestion, and we realized more fully than ever before that our majestic river will afford ample room even for the phenomenal growth of another century.

Tablets like this and everything that helps to stimulate civic virtue and encourage high ideals in our immense population are of inestimable value, and nothing is better calculated to accomplish this than memorials of the heroism and self-sacrifice of our ancestors.

May those assembled here to pay tribute to the gallant defenders of Fort Tryon take to heart the noble example set by those heroes, and may the boys and girls, the hope of the future, also draw a lesson from the past that will make them both happier and better.

The deed is done, the victory won, and while paying due tribute to those who helped to free our land, let us hope that the memorials of our own and later days will celebrate the triumphs of art, industry, and commerce, and that this tablet and all other memorials of bloody strife will be an assurance to our children that the era of War is past and that Peace must reign even to the uttermost parts of the earth, even if it is maintained by great fleets and navies, and better still by international arbitration; but better war than permanent oppression.

Address by Colonel Daniel Appleton, N. G., N. Y.

Ladies and Gentlemen, Soldiers and Sailors: It affords me the greatest pleasure to present this beautiful and artistic tablet to the American Scenic and Historic Preservation Society at the request of Mr. Billings, the donor. I should like to tell you some of the many unobtrusive patriotic and generous acts of Mr. Billings that I know of and that you do not, but Mr. Billings is present and knowing his innate modesty and how much he shrinks from publicity, I will refrain, for I value very highly his personal friendship. I will, therefore, confine myself to trying to draw a lesson from the past to help us in the future.

This tablet appeals to Mr. Billings and myself very forcibly, because it not only records the bravery of our ancestors at the dark period of the Revolution, but it gives us an opportunity of calling your attention to the importance of preparedness for war.

No people in the world are more patriotic, more brave, more impatient for success than Americans. We are to-day, in war times, as patriotic as were our ancestors at Fort Tryon in 1776, and is there any incident in history more sublime, more heroic, more patriotic than that of Margaret Corbin, the wife of a Pennsylvania private, who, here on this spot, in the thickest of the fight when men were falling around her, her husband dead at her feet, took a man's part — "loaded and fired a gun herself with vigor and skill," until she too fell.

Fellow citizens! We need that same innate spirit of enthusiasm to animate us to-day. We want you to show your patriotism now in time of peace. We want you to encourage your brothers, your husbands, and your sons to go in for military training, for rifle shooting, and for learning the art of war.

Parents! We want you to teach your children to respect and honor the army and navy. Archbishop Ireland says: "It is a bad sign when the army and navy are not generally honored and revered. It is a bad sign for any country when the uniform of the soldier does not secure honor for the wearer."

Whether we wish it or not, we must look a probable war in the face. Just as long as commercial rivalry exists, nations will appeal to arms, Hague Conferences notwithstanding.

Our school histories describe the battles we have fought and won, but do they describe the delays, the disasters that have prolonged those wars? Let us avoid the mistakes of the past. Let

us be prepared for any and every emergency. We are no longer isolated, we are a world power. We have not only our own coast to guard, but over-sea lands to protect.

It will hardly be denied that the happiness and welfare of a people depend to a large extent on a full and abiding sense of security from any possible attack.

Of the great nations of Europe, there is only one, the Empire of Germany, in which the feeling of confidence prevails. The young German knows that he needs fear no foe — needs fear no invasion for all his comrades are strong men armed.

The young American, though potentially a strong man, is yet a man unarmed. We are strong in the sense that we have many men and that those men are brave. In a military sense we are weak because a very small proportion of the men know anything of military service. We are weak in many of our wonderful resources. We have no transportation for moving an army. We have no merchant marine. Our coasts are inadequately defended. Our military resources may be inexhaustible but they are as yet undeveloped. We want an army and navy so efficient and strong in numbers and organization that no sane opponent would contemplate invasion. The army, of course, to-day, includes the organized militia.

Let our National Guard be a strong right arm for national defense and let the ranks be always filled.

Our unpreparedness is our danger. It is an incentive to foreign nations to make adequate preparations to invade us. Paradoxical as it may seem, if our preparations were to become adequate, the risk of their ever being used would disappear.

"In Peace Prepare for War." Those five words have done far more to avoid war than all the books and articles that have been written since the world began.

Let us not neglect so important, so obvious a duty as preparedness for war. Then if we are called upon to meet the enemy, on land or sea, or perhaps in the air, we shall be sure of a quick, short, and decisive victory.

Time permits me only to lightly touch upon this national problem, only to draw your attention to it.

Friends, there may be diversity of opinion regarding preparedness for war, but I am sure that you will all join in heart with me in expressing our gratitude to Mr. Billings and our appreciation of his beautiful gift to the city.

This tablet is a work of art, of beauty and of patriotism, it honors the dead, and inspires the living. It points the way to duty, to patriotism and to preparedness for war, even to the giving of our lives.

Address by Mr. Reginald Pelham Bolton.

Mr. President and Ladies and Gentlemen: In the regrettable absence of our venerable historian, Gen. James Grant Wilson, I am asked to speak of the historical associations which cluster around this scene. It is no small privilege for a great community to find among its members some of those, who, like the donor of this memorial, are the possessors and guardians of some historic place or structure in the possession of which they take a pride and exhibit an interest.

And surely, among the places fragrant with memories of the deeds of those who fought to win for us our cherished institutions, no one exists in which the historic interest is more fully blended with the scenic interest than in Fort Tryon.

Before us we see not merely the site of an event of national interest, but also the very rocks and hills upon which the struggle took place which made of this end of Mount Washington an American Thermopylae; centered between the hills of Fordham, of Spuyten Duyvil and the precipices of the Palisades, and between the placid waters of the Harlem and the broad estuary of the Hudson, no place within the bounds of the Greater City can exhibit a more picturesque setting added to the rugged character of the eminence on which we stand.

Such may well have been the thoughts of some of the British and Hessian soldiery as on November the 16th of the first year of independence, they came in sight of the hill, in their advance upon Fort Washington.

The hill no doubt presented a strange and formidable appearance from a military point of view, for the trees were felled to form the abattis behind which lay the Southern boys of the Maryland and Virginia battalion armed with their turkey rifles. And as the Hessian division, under the personal command of Baron Knyphausen, moved over the Dyckman vale below us, the rifles rang out the first notes of the defiant defense, in answer to the pounding of the guns of the frigate Pearl, tacking to and fro in the Hudson off this point.

As the Hessians swarmed up this hill-side, climbing over trees and rocks, led in person by their gallant commander, their artillery opened fire with grape-shot upon the little fort which crowned the spot where we stand, and the fierce fight which lasted for three hours began, watched with anxious solicitude by the great leader of the American cause, from the Palisades yonder. The overwhelming forces of attack were supplemented by a military manoeuvre by which the Grenadier battalion of von Koehler, led by that picturesque character Rall, was brought around the margin of the Hudson to the flank of the fort. Twice the advance of the main Hessian body was rolled back, but the ammunition was failing; and the weapons of many of the defenders were too foul to fire. Upon the final charge on front and flank the little garrison was overwhelmed and the sight of succeeding slaughter of many by the bayonets of the enraged Hessians brought unaccustomed tears to the eyes of Washington.

Such very briefly is the story of the gallant defense of the north outwork of Fort Washington by the Southern boys of which this noble monument will visibly remind the passer-by for all time.

Among the various events which this great Celebration has brought prominently into view, none appeals more directly to the spirit of patriotism which it is so necessary to foster, and none evidences a greater degree of the noble spirit of self-sacrifice, than the heroism and actions of those young Southern men, fighting on northern soil for the benefit of the Nation.

It is by the widening interest in the motives and causes of historical events that we have reason to believe in the perpetuation of the American spirit of liberty and equality, and surely the Hudson-Fulton Celebration, covering as it does in this and other memorials, events of historic interest far beyond the scope indicated by its title, is achieving a work of vast future import.

While we thus unite in acclaiming the work and sacrifices of the heroes of the past and in acknowledgment of the value of the results of their labors and achievements, let us not forget that in all their doings, as in all the results flowing therefrom, the strong hand of the Almighty has been peculiarly visible to the advantage of our land and its people, and let us ascribe to the Highest Source the results which this great Celebration is commemorating, as I venture here to do in the following form:

THE ASCRIPTION.

Hudson-Fulton Celebration.

"Not unto us, O Lord, not unto us
But unto Thy Name give Glory."

God of the Mai-kan[1]
On his fierce lust Thy ban, curbing the savage man,
'Twas ever thus
Thine the restraining Word: Thine was the Power, O Lord,
Not unto us, O God,
Not unto us.

God of the Pioneer,[2]
Thine was the hand to steer, through mist and waters drear,
And ever thus
Thou wast his watch and ward; to Thee the blessing, Lord,
Not unto us, O God,
Not unto us.

God of the Patriot[3]
Directing every shot, that brought his foes to naught,
'Twas ever thus,
Thy hand upon his sword; Thine be the Glory, Lord,
Not unto us, O God,
Not unto us.

God of the Engineer,[4]
Making his purpose clear, hope and achievement near,
Ever 'twas thus,
Thine the benign accord; Thine all our gain, O Lord,
Not unto us, O God,
Not unto us.

God of our Babylon,
Strong in her steel and stone; weak against wrong alone,
And ever thus,
Be thou her Guide, O Lord; then Thine the great reward,
Not unto us, O God,
Not unto us.

[1] The oboriginal inhabitant.
[2] Hudson.
[3] The American patriot.
[4] Fulton.

Address by Mrs. William Cumming Story.

Mr. President and Ladies and Gentlemen: In representing the Daughters of the American Revolution I am sensible of the honor that you have conferred upon me in asking me to speak on this important and interesting occasion. I realize that our organization stands for high ideals and a great purpose, and, unless we can in our day serve worthily the community in which we live, we will fall short in the responsibility that rests upon us as descendants of the noble men and women who sacrified life, liberty, and happiness that our Republic might live.

It is well, therefore, that we should recall the heroism of this past and I am happy in having assigned as my topic one of the brave and true women who served our country and on this spot proved her devotion, Margaret Corbin.

Margaret, daughter of Robert Cochran, was born in what is now Franklin county, Pa., November 12, 1751. During the Indian raids of 1756, her father was killed and her mother taken prisoner. She was never heard from again, though seen in 1758, 100 miles west of the Ohio, and the children, Margaret and her brother John, remained under the care of their maternal uncle.

About 1772, Margaret married John Corbin, a Virginian by birth, and when, at the beginning of the Revolution, he enlisted as a matross in Captain Proctor's First Company, Pennsylvania Artillery, she having no children to demand her care at home, accompanied her husband, giving woman's care to him and his comrades in the army.

At the attack on Fort Washington, a shot from the enemy killed John Corbin, and as there was no one to take his place at the gun, the officer in command ordered it withdrawn. Here Margaret Corbin showed what manner of woman she was. Unhesitatingly she took her husband's place, quietly and steadfastly she held his post, performing his duties, with skill and courage, until seriously wounded.

The officers of the Army warmly appreciated her services, and the State of Pennsylvania made prompt provision for her; but inadequate to her needs, and the case being brought to the consideration of the Board of War, Congress, in July, 1779, resolved:

"That Margaret Corbin, wounded and disabled at the battle of Fort Washington, while she heroically filled the post of her husband, who was killed by her side, serving a piece of artillery, do receive during her natural life, or continuance of said disability, one half the monthly pay drawn by a soldier in the service of these States; and that she now receive out of the public stores, one suit of clothes, or the value thereof in money."

On the rolls of the Invalid Regiment in Pennsylvania, commanded by Col. Lewis Nicola, as it was discharged in April, 1783, is found the name of Margaret Corbin. She was pensioned by her native State, at the close of the war, and until her death, which was caused by the wounds received in battle.

She resided in Westmoreland county beloved, honored, and respected by every one. She died about 1800, the precise date not being obtainable. De Lancey, writing of the capitulation of Fort Washington, wrote: "The deed of the Maid of Zaragoza was not nobler, truer, braver, than that of Margaret Corbin, of Pennsylvania."

Address by Miss Helen Varick Boswell.

Mr. President and Ladies and Gentlemen: I always like to talk about the American woman, in whatever connection her name may appear.

When I found myself scheduled to discuss her "in peace and in war," here before this beautiful tablet which is inscribed with the name of a woman so worthy of the reverent appreciation of every patriot in America, I thought of that other woman whose presence at the great function of the Hudson-Fulton Celebration Commission in the Metropolitan Opera House a few evenings since, was in itself a glowing exposition of the true American woman such as no word picture of mine, however eloquent, can create. She was a little woman, frail and bent, but the majesty of her womanhood made her the greatest among all that distinguished company.

Years ago, when the heart of our beloved Republic was throbbing with the agony of its Civil War, she gave the slogan of liberty to the Union in her "Battle Hymn." Through all the years that lie between us of to-day and that period so pregnant with possibilities of progress to our nation, that same little woman has stood before us in many a bloodless campaign in behalf of our country's honor — always the same matchless heroine, the same typical American woman — Mrs. Julia Ward Howe.

As my beloved friend and leader, Mrs. Story, was speaking of the illustrious deed which has inscribed the name of Margaret Corbin, not only upon this bronze memorial behind me, but upon the yet more enduring tablet of the hearts of the American people. I thought of the many thousands of women who are to-day standing side by side in the industrial world, as truly heroines as she who long ago shared in the gallant defense of this historic ground. These heroic women are almost as numerous as the men who are filling the ranks of wage and salary earners, and they are cheerfully, courageously — aye, and successfully, most of them —

maintaining their loved ones. Fathers and mothers, children and alas, too often! — husbands, are dependent upon the fortitude which never fails of these thousands and tens of thousands of women who are crowding the ranks of the industrial world. It is indeed the "woman's invasion" in time of peace, but she fills her role with credit to her own energy, her own ability, and with honor to the country whose flag and the deathless principles it stands for, has made her emancipation a reality.

The sun is setting, and as he descends his splendor illumines the warships of many nations as they lie amicably side by side within the borders of our own fair land — here upon the bosom of the broad Hudson almost at our feet. Those ships are manned by sailors from other lands than ours, and yet as dear to them as ours to us. To each his own flag, his own soil, are the dearest on earth, for

> "Breathes there a man with soul so dead
> Who never to himself hath said
> This is my own, my native land?"

Of all that multitude, gathered here in a common brotherhood from "all the nations of the earth," there are few who have not come from some place in this wide world where a woman is watching for them, praying for them, working to keep their home, however humble, full of comfort and peace for their returning loved ones. They are all heroes — for I like to use the generic term irrespective of sex — these women of every nation, who so faithfully fill their places "in that station in life to which it has pleased God to call them;" and I know how ready is the tribute of my masculine hearers to the true womanhood of all the world.

Yet, I dare to believe that most of you are a little more ready to yield your allegiance to the American woman, and I dare to promise for her that she will hold up your hands, in peace as in war, and send you forth to do battle for the right, wherever the battle is to be fought.

APPENDIX D.

PROCEEDINGS AT THE DEDICATION OF THE STONY POINT ARCH AT STONY POINT, N. Y., OCTOBER 2, 1909.

DEDICATION OF THE STONY POINT ARCH.

On Saturday, October 2, 1909, at 12 o'clock noon, the Memorial Arch erected by the Daughters of the Revolution of the State of New York on the Stony Point Battlefield State Reservation on the Hudson River was dedicated in connection with the Hudson-Fulton Celebration under the auspices of the Hudson-Fulton Celebration Commission, the American Scenic and Historic Preservation Society (custodians of the reservation), and the New York State Daughters of the Revolution.

The Stony Point Committee of the Hudson-Fulton Celebration Commission consisted of Mr. Gordon H. Peck, Chairman; Mr. Henry K. Bush-Brown, Hon. Thomas H. Lee, and George Frederick Kunz, Ph. D., Sc. D.

The Stony Point Committee of the American Scenic and Historic Preservation Society consisted of Mr. Gordon H. Peck, Chairman; Mr. Henry K. Bush-Brown, Edward Hagaman Hall, L. H. D.; Mr. Francis Whiting Halsey, and Hon. Thomas H. Lee.

The Patriotic Committee of the Daughters of the Revolution consisted of Mrs. John H. Abeel, Chairman; Mrs. Zeb Mayhew, ex officio; Mrs. Robert J. Davidson, Miss Josephine Wandell, Mrs. Joseph J. Casey, Mrs. Henry W. Helfer, Mrs. Ashbel P. Fitch, Mrs. William H. Hotchkin, Mrs. S. A. Goldschmidt, Miss K. J. C. Carville, Mrs. Clarence L. Bleakley, Mrs. Charles F. Van Inwegen, Mrs. Albert R. Genet, Mrs. Arthur A. Hebert, Mrs. Leverett F. Crumb, Mrs. Wilbur F. Wakeman, Secretary.

A full description of the Memorial Arch will be found on pages 143–164 of our Fourteenth Annual Report.

His Excellency the Hon. Charles E. Hughes, Governor of the State of New York, arrived from Newburgh on the flag-ship of the Naval Militia a little before noon and was received with appropriate honors upon landing at the steamboat wharf. He

then made a tour around the reservation and was accompanied to the speakers' stand immediately west of the Memorial Arch by the following escort:

Marshal, Mr. William Benson.
Glassing's Military Band of Haverstraw.
Company N, 23d Regiment, N. G., N. Y., Alexander F. Martin, Captain.
Haverstraw Cadets.
Fox's Military Band of Haverstraw.
Edward Pye Post, G. A. R., of Haverstraw.
Detail of Edward Pye Post, G. A. R., in Continental Uniform, Edward Weiant, Captain, as Guard to the Governor.
Carriages containing
His Excellency, The Governor of the State of New York,
The Governor's Staff,
The Speakers,
The Stony Point Committees.

A battery of two guns from the United States Military Academy at West Point fired salutes to the Governor upon his arrival and departure and upon the unveiling of the arch.

Dedicatory Exercises.

The assembly was called to order by the Hon. Thomas H. Lee, who introduced as the presiding officer of the day, the Hon. Frederick W. Seward, ex-Assistant Secretary of State and ex-Acting Secretary of State of the United States under Presidents Lincoln and Johnson. Secretary Seward is the last surviving member of President Lincoln's cabinet, having acted as such in place of his father, William H. Seward, who was ill just prior to the President's assassination. Mr. Seward conducted the exercice in the following order:

Invocation and Collect for the Daughters of the Revolution, Rev. Edgar Tilton, Jr., D. D., Chaplain D. R. State of New York.

Music — "Columbia, Gem of the Ocean."

Greeting and Presentation of Memorial Arch, Mrs. Zeb Mayhew, Regent D. R. State of New York.

Unveiling of Memorial Arch, Mrs. John H. Abeel, Chairman, Patriotic Committee, D. R. State of New York.

Music — "The Star Spangled Banner," Junior Sons and Daughters and School Children of Stony Point and Haverstraw.

Oration and Dedication of Memorial Arch, His Excellency, Hon. Charles E. Hughes, Governor of the State of New York.

Acceptance of Memorial Arch, Mr. Francis Whiting Halsey, Trustee of the American Scenic and Historic Preservation Society, Custodians.

Music — "America."

Patriotic Address, Mrs. Frank E. Fitz, President-General D. R.

Address, "Art and the History of America," H. K. Bush-Brown.

Benediction, Rev. Edgar Tilton, Jr., D. D.

Invocation by Rev. Edgar Tilton, Jr., D. D.

Let us invoke the Divine Presence.

Almighty and ever-living God, Creator, Ruler and Preserver of the world and of mankind; Father of our Lord and Saviour Jesus Christ, the living God and Saviour of all men, hear us to-day as we invoke Thy Presence. We thank Thee, O God, for the spirit of brave adventure to which this Nation owed its birth; we thank Thee for the Nation's history and the Nation's progress. We thank thee, O God, that when the rains descended and the floods came and the winds blew and beat upon her, she fell not, for she was founded upon a rock. O God, as Thou hast preserved the Nation in the past, so preserve her in the future; and as Thou hast in the past given to her wise rulers and statesmen, so in the days to come, may we have wise men to rule over us, men after Thine own heart; and may this Nation be governed according to the principles which we find in Thy Holy Word. O God, we pray that peace may always reign here and abroad, and that all the Nations of the world may recognize Thee as the only ruler, as Jesus Christ, and recognize Jesus Christ as the Prince of Peace. Let Thy richest blessing rest upon us this day throughout this service. Be near to those who shall speak; and may all the services of the hour redound to Thy honor and glory.

Collect by the Audience.

O Thou who turnest the hearts of the children to the fathers, and hast declared that the righteous shall be had in everlasting remembrance, we thank Thee for the inspiration which called into existence the Society of the Daughters of the Revolution: and the blessing which has hitherto attended it. And we pray Thee to continue to aid our Society in this and succeeding generations, in the pious work of perpetuating the memory of the sacrifices and sufferings, and valor of our fathers, through which our priceless heritage was won.

And finally, when we also shall have served Thee in our generation, may we be gathered unto our fathers, having the testimony of a good conscience; in favor with Thee our God, and in perfect charity with the World.

All of which we ask through Jesus Christ our Lord. Amen.

Address by Hon. Frederick W. Seward.

Fellow Citizens: We are met to-day to dedicate this Memorial Arch erected by the patriotic zeal of the Daughters of the Revolution, to the memory of those who fought on this battlefield during the War of Independence.

Stony Point itself is a monument, and a witness of three great events of American history. Stony Point looked down upon that little ship of Henry Hudson on her voyage of discovery, when she lay at anchor in yonder cove. Stony Point looked down upon Robert Fulton's "Clermont" when she came up the river to open the era of steam navigation; and Stony Point was the battlefield where was fought the decisive struggle which secured to the Americans the control of the main line of communication between the Colonies throughout the whole Revolutionary War. That naval pageant that went up the river yesterday typified all three of these great events, for the "Half Moon" came up again flying her old flag, commanded by a Dutch crew; the "Clermont" came up again bearing descendants and kindred of Robert Fulton, and both escorted by an immense fleet of merchant marine and naval vessels, all vieing to do honor to that Flag which was fought for here at Stony Point.

It was wise and patriotic in the Daughters of the Revolution to see the connection between all these events, and to link their

dedication with the celebration of those other great achievements which have so largely contributed to the advancement and the welfare of our country and of the world.

And now, I have the pleasure of introducing to you the Regent of the Daughters of the Revolution, Mrs. Zeb Mayhew.

Address by Mrs. Zeb Mayhew.

Mr. Chairman, Governor Hughes, Daughters of the Revolution and Friends: To perpetuate the patriotic spirit of the men and women who achieved American independence; to commemorate important events connected with the War of the Revolution, those are the objects of our Society as set forth in our Constitution, which we have endeavored to accomplish in this Memorial Arch.

It is said that anticipation is greater than realization. We, the descendants of those men and women who achieved American independence, are gathered here to-day to do them honor and to share in the joy of realization which far exceeds our fondest hopes. We are eighteen years old, still having birthdays, and as a State Society this is our "coming out" party. Heretofore, we have had doll parties, comparatively speaking, and have placed many handsome tablets to commemorate historical spots; we have also placed a stained glass window on Harlem Heights, but this is our first big party on our own account; and we thrill with pride and enthusiasm to know our efforts are recognized; and we are greatly honored in having with us the Chief Executive and first citizen of the State, the Hon. Charles E. Hughes, besides other prominent gentlemen well known to you all.

The idea of placing a memorial here among the hills and vales which witnessed the birth-throes of a nation budded in the mind of Mrs. Robert J. Davidson, of Rockland county. We all responded to her call, for what more inspiring place could be found than Stony Point, this natural monument to sublime heroism, ground made classic by the history of the country. The building of this arch by a small body of women in these busy days called upon our time, purse and much labor and sacrifice. As I look at its huge figure looming there in veiled grandeur, veiled in a Nation's emblem of peace, love, strength, and freedom; and to think how we have all worked and sold tickets and even played bridge in its behalf, I am reminded of the good old praying member of the church who was suddenly afflicted with nearly all

the ailments. He had rheumatism and aneurism and curvature of the spine and was finally struck with paralysis, and after several months suffering, finally got better, and one evening they had a prayer meeting, and he went to the prayer meeting. The old preacher arose and said: "Brethren, I want us all to have a good time to-night; I want every one of you to get up and tell what the good Lord has done for you. Now, Brother Jones has been severely afflicted, and has not been with us for many months. Brother Jones, get up and tell us all the good Lord has done for you." Brother Jones arose and hobbled up into the aisle, and after a long pause, said "Well, He has about ruined me." I think the Daughters will agree that to get this memorial ready for this celebration has about ruined us.

The story of the men who made Stony Point immortal is too well known to need more than passing comment; how on the early morning of July 16, 1779, Anthony Wayne and a small corps of troops surprised the well-fortified English and with unloaded muskets picked their way behind the parapets, climbing over stones and fighting only with bayonet, charged the camp. To the surprised and terrorized British the rocks had become suddenly an active volcano which was pouring forth. Onward and upward they climbed, cutting and hacking and slashing, and plunging into an inferno of grape-shot, shrapnel, and shell, unheeding they tore their way through, cut away the pickets, mounted the parapet, entered the fort at the point of the bayonet, shouting "The fort's our own." And there they placed Old Glory, that wonderful thing — at its best only a piece of painted bunting, at its worst a mere rag, tattered and torn, stained by smoke, riddled by shot and shell, but the very soul and inspiration of a nation's love, for which these forefathers of ours flung thus forward in the face of fearful odds, and as they hacked and cut and pushed their way to the front line of battle, as they fell, they turned, and with their last breath on this earth breathed out a cheer for the flag — our flag. So that flag in its imperishable glory rests with us immortal, so that future generations may read the story of that dearly bought emblem and know as we know, that so long as American honor and American patriotism stand guard beneath it, in this whole wide world, there is not an arm strong enough nor a heart brave enough to pull that flag down.

Last winter I found it necessary to be far away for several months. "Why, how can you go at such a time? What will be-

come of the arch?" asked my friends. But I assured them that I had no worries on that score. I felt a good deal like Rufus, who, on going on a fishing excursion, was addressed by a gentleman who thought it a good time to reprove him for his laziness. He said, "Rufus, do you think it right to leave your wife at the washtub while you pass your time in fishing?" "Oh, yes, it's all right. My wife don't need no watching; she will wash just as hard as if I was there." And I was right. They all worked and accomplished just as much as if I were here. But at their head, leading them on, was a very able general in the patriotic work, our ex-President General and Regent, Mrs. John Howard Abeel. Her untiring zeal and devotion to this work, which was started while she was at the head of the Society, made it eminently fit that her loving hands should be the ones to draw the veil aside and reveal in all its glory our labor of love.

Your Excellency, it is my great pleasure and privilege, on behalf of the Daughters of the Revolution of the State of New York, to present this arch, erected to commemorate the deed and date of Gen. Anthony Wayne, and his brave men who took this stronghold from the British 130 years ago, to the State of New York; through you, its Governor, do we present this memorial, trusting it may long stand as a testimonial of our love of country, so that it may be read by all men.

Unveiling of the Arch.

Chairman Seward: The next thing in order will be the unveiling of the arch, by Mrs. John Howard Abeel.

The flags which draped the arch were then removed.

Chairman Seward: I have the honor to present to you, your guest of honor for the day, Hon. Charles E. Hughes, Governor of the State of New York.

Address by Hon. Charles E. Hughes.

Mr. Chairman, Madam Regent, Daughters of the Revolution, Ladies and Gentlemen: Despite the announcement of the program, I am sure you will understand that it would be utterly impossible for me to attempt a formal address. As the functions of this Celebration, day by day, make their demands upon time and strength, I am thoroughly convinced that if I put in an appear-

ance on all the occasions at which I am expected, I shall be doing very well, even if no remarks are made. But of all the functions connected with these commemorative exercises, there is none at which I should feel a greater pleasure in being present than at this function, so significant in the character of its testimonial. I am always glad of the opportunity to hear the Daughters of Eloquence speak the praise of their Revolutionary fathers.

We have had an inspiring tribute from the Regent of the Society, under whose auspices this dedication is held, and I congratulate all who have had the rare pleasure of listening to the beautiful and eloquent words of the address of your Regent.

Had there been no settlement made in this valley, and had it never been the scene of struggle, its discovery and the exploration of this most beautiful of rivers, would have been events worthy of commemoration by all the world.

When, however, we reflect upon the progress of the past 300 years, to so large a degree made possible by the discovery and the invention which we are celebrating, we find the charm of nature heightened by the fascination of the history of human achievement. This is a celebration in which the daring of the explorer and the patient work of the inventor are alike commemorated, both being the most significant of all in what they typify, connected with the progress of humanity. We have along this valley many industries, vast commerce, prosperous communities, and at the wonderful harbor to the south, the metropolis of a continent. If we were unworthy of our ancestors, this would be a celebration simply of wealth and material gain, for here, perhaps, as nowhere else in the world, are signs of the progress of man in making nature contribute to his happiness, and in utilizing the increasing facilities for the interchange of the products of industry. Here is wealth beyond the dreams of the early times to which our attention is directed. Here, to-day, are the signs that point unfailingly to a future still more prosperous than the past which we celebrate. But it is because we are worthy of our ancestors, and cherish the treasure which they have committed to our trust, that we turn aside from the indications of material gain, much as we prize them, to pay our sincere tribute of respect to sacrifice, to courage, to loyalty, and intense love of freedom, which are commemorated in that beautiful arch.

It is well that this dedication should bring us to this historic spot. All along the valley are the scenes of most romantic story, and of many incidents in the historical struggle for independence, but here we find particularly emphasized the importance of this great river in the War of the Revolution; and the necessity of maintaining it clear of control, in order that the colonies might successfully co-operate against their common foe.

The Hudson has been and is the highway of commerce; it links us to the vast west; it is the avenue by which the products of the entire United States are transported to all the nations of the earth. Precisely because of the facts which made it and will always make it an avenue of commerce, it was the point of greatest importance, so far as control and strategy were concerned, in the War of Independence. The control of this river lost, the Colonies were hopelessly divided. This river Washington must hold, and his great military genius he devoted to securing it. Again and again the effort was made to break permanently the line of communication — to sever the Colonies, to destroy all possibility of confederation in struggle, and thus to put an end to the great War for Independence. Here on this spot was one of those rare exploits in which strategy and bravery both reached the highest level of attainment. Strongly fortified, deemed impregnable, the British stood here, apparently secure in their control of the entrance to the Highlands, and efforts based upon that supposed security were made for the purpose of distracting, annoying, and annihilating on either side of the river the force of the confederation.

We must pause as we stand here, to pay a tribute to the eminent foreigner who contributed so greatly to the success of the Revolutionary struggle. I refer to Baron Steuben. Our great historian, John Fiske, in one of those illuminative paragraphs with which his work is full, shows to what degree the success of the storming of Stony Point was due to the organization and drill which the coming of Baron Steuben made possible. Here were those who were trained in a severe school and had learned a lesson of discipline, which enabled them to put their matchless bravery to the best uses, at a critical point, and at a time of crisis in the war. An so, when the great leader determined to secure this important means of communication, he resolved, if it were possible, to subdue this supposedly impregnable fortress. It was possible for the same reason that Independence was declared, and the

Union saved in the Civil War; and for the same reason that we had a Washington and a Lincoln, and a Grant, and are to-day a united people. It was possible because there was a Wayne, and men worthy of a Wayne to follow him; and because, despite his difficulties in keeping an army in the field and despite the regrettable desertions of so many that served in the Revolutionary War, Washington did not look in vain. And the country has never looked in vain for men who could give all their sacrifice and blood in order that at a time of crisis the destiny of this people might be realized.

They called him "Mad Anthony Wayne." It is the madness that makes histories and empires; it is the madness that has given us the American Republic, and will cause it to endure.

In a materialistic age, it might well seem madness. It would indeed seem madness to a man who will exchange honor and loyalty and faith for gold. It was not madness to Wayne. It was simply duty; it was simply the performance of a task assigned him by the great Commander to whom he was loyal. It was simply the expression of his fine individuality in an act of supreme courage, which we honor because of its unconsciousness of self. It is the madness that must permeate the American people and rescue them from their own success and their own prosperity, if our children are to have, in their purity, the institutions which "Mad Anthony Wayne" helped to found.

The story, as Mrs. Mayhew says, has often been told. She gave it with beautiful words and rare force. It is one thing to make a charge, if you feel that if necessity requires you can shoot; it is another thing to make a charge with an unloaded musket. There was a charge made in silence. It is one thing, with the sounding of drums and with flags flying, and all to bring out the ardor and the courage which most men have, to lead a charge upon a field of battle. It is another thing, in the dead of night, in silence, against overwhelming odds, with nothing to cheer, with everything to depress, urged on only by command and the highest sense of duty, to go up yon impregnable heights, and surprise an enemy in his stronghold.

No finer exhibition of bravery has been given to the world. We have had great strategists; we know the necessity of strategy. This move itself was strategy of the first importance. We admire leadership, and praise sagacity, and we know the necessity for all the counting of the costs, and the estimate of every move in its

proper place, to bring about any achievement of importance; but, after all, it is fortunate that we are endowed with something better than memories of strategy. It is fortunate that we have a richer heritage than simply the remembrance of men who were astute. We had men who supplemented astuteness and strategy by fearlessness not exalted upon the field of battle; and here we commemorate an exploit worthy to be classed with any deed of daring inspired by high impulse, that the world has ever known.

Now, that was done for our country. We would honor humanity exhibiting itself in such fine endeavor anywhere in the world. We would pay our tribute to any hero of any nation, who, in a time of stress, proved that of which humanity in its finest moments is capable. But we are thankful to-day — after all, we are thankful to-day that we are not paying simply the just meed of praise to the great man and great leader and brave hero, but to one who worked for us, that this country might be free, and that we might enjoy the privileges of this favored age.

When we reflect upon that, we are mindful that the calls of patriotism are thus as important to-day as they ever have been. We are not to charge up Stony Point, or capture fortresses of earth and stone; but do not imagine that all the fortresses that need to be taken have been reduced. Our patriotism is not worth the expenditure of the time and money of which Mrs. Mayhew spoke, if it simply exhibits itself in memorials of a sacrifice that is past, or if a recognition of a patriotic order, and love of country, of which no illustrations could be found in our present life. We must always, upon these occasions, reflect upon what our country means. Patriotism here does not mean devotion to the flag as a symbol of power, although we are glad our nation is so powerful and need fear naught. It is his devotion to the flag as a symbol of prosperity — he rejoices in the prosperity of this land so favored by nature — it is devotion to the flag as a symbol of free institutions, and of equality in which every man and woman has a right to share.

We rise to the demands of these patriotic occasions if we have more earnest desire in our hearts to share with our brother man the advantages of this great Republic; we lose the benefits of these great occasions if we regard them as the exclusive property of any. The obligations may be more important upon descendants, but privilege is not exclusive in this country. We are all together, the descendants — the recent comer, the newcomer himself — with the

favored sons and daughters of worthy sires who struggled long ago, we are all together trying to work out before the nations of the earth, successfully, the great experiment of institutions recognizing equality before the law; and as we look at our beautiful flag and sing the inspiring strains of the "Star Spangled Banner," let us go forth resolved each in our own sphere to the full extent of our ability to enlarge the area of opportunity and of advantage, so that in our day and generation, the fortresses of avarice and of selfishness and of covetousness may be taken, and we may realize to a larger degree the great goal of Human Brotherhood.

Address by Mr. Francis Whiting Halsey.

Chairman Seward: In the absence of Dr. Kunz, President of the American Scenic and Historic Preservation Society, the custody of the arch will now be accepted, in their name and behalf, by Mr. Francis Whiting Halsey, Trustee of the American Scenic and Historic Preservation Society.

Mr. Halsey then spike as follows:

Mr. Chairman, Governor Hughes, Madam Regent and Daughters of the Revolution; Ladies and Gentlemen: I hope no one has been overlooked, for I sincerely wish to commiserate you all on the absence of Dr. Kunz, who was here one year ago and made a speech for the Society. All who heard it or have since read it will recall how well that speech was made. The Society has the additional misfortune of not being able to summon here to-day one of its vice-presidents. Mr. Devoe is quite infirm. Dr. Leipziger is on the water, bound home from Europe, and is now somewhere off Nantucket. Colonel Sackett is secretary of the Hudson-Fulton Commission, and that tells its own story. Then we have Dr. Edward Hagaman Hall, secretary of the American Scenic and Historic Preservation Society. He is here, ladies and gentlemen, and last year he made the speech at the laying of the corner-stone of this glorious arch. You all naturally will ask, Why he is not making the speech to-day? It is not because he could not make two speeches with this arch for his inspiring subject, but because he believes that I, as a member of the Stony Point Committee of the Scenic Society, should begin to do some work.

I cannot better render thanks to those who are responsible for calling me here than by quoting the words of the man who had long been ill, and on becoming convalescent, received from the

wife of one of his friends a jar of peaches, of that kind which wise and thoughtful ladies sometimes reinforce with brandy. Writing to express his thanks, he said he was extremely fond of peaches, but in this instance what he specially liked was the *spirit* in which they were sent.

Now it is not mere personal thanks that should be returned here to-day, but the thanks of this Society as representing the State — the Society being custodian of the State property — thanks for this glorious arch. And we all cannot fail to see the extreme fitness which has marked the selection of the material for that arch, which was chosen from these very grounds; stone which has been here longer perhaps than stone anywhere else on this continent — the stone of these highlands of the Hudson. It is well known to geologists, that while our country is sometimes called the New World, in a geological sense it is the old world. It is far older than most parts of Europe, and these lands about the highlands mark the oldest part. And hence, it is not the hill at Athens which is crowned by the Acropolis, not the Seven Hills on which Rome reared her city, not the arches erected to Constantine and Alexander or Severus, not the arch erected by Napoleon, looking down on the Champs Elysees, but here we have in this land of ours, the oldest stone, geologists tell us, that exists on this continent.

But permit me to say a few words as to the pre-eminent historical interest of our own State and particularly of the Hudson valley. After all that may be recalled of Plymouth and Boston, of Jamestown and Philadelphia, it is to New York city and to New York State that the chief distinction in American history belongs. Henry Hudson sailed up the river that bears his name many years before the Pilgrim fathers landed at Plymouth.

Hudson made friends with the Indians, and in that act prepared the way for a friendship which was to be of momentous consequences in the great conflict for Anglo-Saxon rule in America more than a century afterward. The French from Canada made war on the Indians; the English of New York constantly cultivated their friendship, and, under Sir William Johnson, maintained an alliance which, as most historians believe, really turned the scale in favor of English rule.

The scenes of that war embrace a large territory. Beginning with an obscure engagement on the southern borders of Pennsylvania, at a place called Great Meadows, where, in the death of

Jumonville, as the result of orders given by George Washington, the shot was fired, which, as Parkman says, "set the world on fire"— it goes forward to Braddock's defeat and to operations in Canada; but here in New York were many vital engagements throughout the whole ensuing conflict that closed at last on the Plain of Abraham.

For the part which the Indians of New York took in saving this continent for Anglo-Saxon rule, we cannot well accord them too much honor, and we should here remember that, in the efficient work they did, much was due to the federal idea in their government through which they had been raised to their wonderful efficiency in war. That federal idea was conceived and wrought out on New York soil in the upper Hudson valley.

In the brains of these red men of the forest, and not in the brains of Washington, Madison, or Jay, the beginnings of federalism on the American continent are found. Those Indians for more than three centuries held the component parts of their organization together. Long before the white man had made our lands his own, before he had built his highways, his towns, and cities, and had planted in New York a population of eight millions of souls, this dusky warrior race had marked out our territory as a land of empire.

But their chief contribution to our civilization was in the help they gave in the war with France. Surely I need not remind this company what that victory of England has meant for your land and mine. I need not say that in place of Roman law it has given us all that we owe to Magna Charta, to the Bill of Rights, and to trial by jury; that instead of the Inquisition we have had religious liberty; instead of centralization of power and tyranny in office, the town meeting; instead of an ignorant populace such as darkens every hamlet in Spain, the little red schoolhouse; instead of a Louis XV, a Thomas Jefferson; instead of a Duke of Alva, that finest type of an American citizen, that man who was born in a cabin scarcely better than the cabin of an Iroquois Indian, and yet who rose to be the second savior of his country, Abraham Lincoln.

When we approach the Revolution, the prominence of New York strikes us still more, simply because that is a more familiar theme. Historians, however, are coming into agreement as to the greater importance of the French War in its bearing on the future of North America. Independence must have come sooner

or later, but had France secured control of North America, it seems unlikely that she would have lost it afterward.

The Revolution had its first battlefield near Boston; its closing strife took place far to the South, but the battles fought in the Middle States, in New York, Pennsylvania, and New Jersey, form the most vital conflicts in all the struggle; and they were fought for one purpose, for the control of the Hudson valley, which was the central and critical ground of the Revolution. Around that Hudson valley contest revolved the battles of Long Island, Harlem Heights, Washington Heights, Princeton and Trenton, Brandywine and Germantown, Oriskany, Saratoga, and Stony Point, and last of all, though by no means least, in the tremendous issues involved, the treason of Benedict Arnold.

We must remember, further, that the first blood of the Revolution was shed on New York soil, in New York city, five years before Pitcairn went to Lexington and the embattled farmers "fired the shot heard round the world." This was the battle of Golden Hill, fought in John street, as the result of a disturbance growing out of the tearing down of "liberty poles" by the British troops.

All the more honor belongs to New York because here had been a flourishing center of life completely dominated by English influences. The city had long been the center of a small court modelled after the court of London, society and public life had derived their tone from a royal example. Men and women conformed in dress to London fashions.

Wherever an official was found he was almost certain to be a Tory; if not a Tory he was a neutral man; he was never a patriot. The real patriots of New York were men outside the official class, men who earned their livelihoods, not by holding office, but through enterprise, industry, and laborious toil. They were the true Americans of that time, of whom the finest example was Philip Schuyler.

This patriotic party, which was nowhere stronger than in New York, really formed an American branch of the great English party which was then out of office. Our quarrel with the mother country was, in fact, precisely the same quarrel in which the Opposition Party in Parliament was engaged. Parliament did not represent the English people. It was a packed body, and the King controlled it. Popular government there was none, great towns being wholly disfranchised. When we recall the sympathy

given to our cause by Burke, Fox, and Chatham, we must remember how well they understood that we were fighting their battles as well as our own. They knew that, should England grant the American demand, the same principle would have to be applied to great disfranchised towns like Birmingham and Leeds.

George Washington fought not only the battles of America, but the battles of the English people. Not in one world alone did he become the founder of free States, but in two lands and in two worlds. We have raised to his memory on the banks of the Potomac the tallest shaft in all our territory. A monument equally imposing might well be set up in everlasting honor of him on the banks of the Thames in London.

I need not further enumerate here the Revolutionary events for which New York supplied the scene, chief among them all the Burgoyne campaign, from which we must date the turning of the tide, with the loan we got from France and the soldiers France sent us. Nor need I enumerate those minor events that we call the Border Wars, those wars of arson, massacre, and ambush-fighting, which laid desolate a vast territory along the Mohawk and Susquehanna, reducing it to a land of complete desolation, where the principal population that remained at the end of the war consisted of 300 widows and 2,000 orphans. As it was in the battle of Golden Hill that the first blood of the Revolution was shed, so here in New York nearly fourteen years afterward, the last scene of the war took place when the red-coats sailed from the Battery on that late November day we still celebrate as Evacuation Day.

New York throughout the conflict had maintained a loyalty and an efficiency in war scarcely exceeded in importance by the territory she supplied for the scenes of conflict. From first to last she held to her allegiance — patriotic, imperial New York. Thus, very largely on her soil, from prehistoric times when the idea of federation first was conceived by the New York Indians, down through the war with France and the struggle with England, were laid the foundations of that new and grander empire of democracy of which New York now forms so conspicuous a part — that empire reaching from the stormy sea that divides our land from Europe to the placid waters that lave our Western shore, from the great unsalted seas of the north to the tropic Gulf.

In conclusion, I accept the custody of the Memorial Arch in the name of the American Scenic and Historic Preservation Society, custodians of the Stony Point Battlefield State Reservation,

for the people of the State of New York, promising, in its behalf, to cherish and guard it as a worthy memorial of those who so bravely fought here for the independence of our Republic.

Address by Mrs. Frank E. Fitz.

Chairman Seward: The next in order is an address by Mrs. Frank E. Fitz, President-General of the Daughters of the Revolution.

Mrs. Fitz then spoke as follows:

Mr. Chairman, Distinguished Guests, Madam State Regent and Daughters of the Revolution: The pulse of every true Daughter beats with pride to-day as she sees accomplished this noble achievement of one of her sisters. It is my privilege to be present and present for them their heartiest congratulations. Every act of ours commemorating the spirit of the Revolution serves to perpetuate the principles for which the colonists fought. Our tributes serve a two-fold purpose; they honor the man who did, and they silently but effectively urge their descendants to deeds of greater patriotism for this and future generations.

The history of the civilized world has been perpetuated in monument, tablets, busts, and medals. Public memorials have become the shrines where is offered the adoration of an appreciative people. Magnificent statues and splendid architecture represented the ideals of ancient Greece and Rome, and to-day we dedicate a memorial to the deeds and ideals of one who shared in the founding of a new nation. Men without ideals and ideals without men never achieve any true greatness. The distinguishing trait in the struggles of our forefathers is found in the sacrifice for the sake of principle. It was not for the lust and glamor of arms that they yielded life and property. The American Revolution was an achievement for freedom, manhood, and self-respect. The highest privilege entrusted to our Society is that of individually commemorating the heroes of our own State.

In 1789 the people of Concord, Mass., erected a granite shaft to the valor of the men of their town who died in the first struggle for liberty. This was the first public memorial on American soil to the Revolution. One hundred and twenty years later a thankful people are establishing another memorial. May the spirit never cease until America has fulfilled its destiny.

Distinguished men and women are sharing in the homage of to-day. Their presence and the part they take in these ceremonies prove the value of the work of these women, whose endeavors are crystalized in yonder stone structure. The work begun here is before the whole people. As visitors come here from all parts of the nation, may they bear away with them inspiration for greater personal patriotism, and so may the lesson of this memorial result in blessings throughout our lands. May it be an altar of worship for a free man in a free land.

Address by Mr. Henry K. Bush-Brown.

Chairman Seward: The next and the last speaker will be Mr. Henry K. Bush-Brown, the designer of this arch.

Mr. Bush-Brown spoke as follows:

Mr. Chairman, Your Excellency, Madam Regent, Ladies and Gentlemen: My topic here suggests a long address, but I will not keep you more than a moment. I wish merely to state that it is my function, as one of the artists of the country, to perpetuate in some enduring form that kind of madness which our Governor has referred to, that goes to make the altruists, the idealists — those who work not for self, not for their own aggrandisement, not for the accumulation of wealth, but for others, that the world in which they live and those who may follow after them may have a freer and a nobler and a higher life. We erect this memorial here to one of the highest altruists that this country has ever seen — Anthony Wayne. Long may we have such men. I will not call them mad, because they are the idealists who help us hold ourselves up to a standard of life to which all and every one should aspire.

I thank you for your attention.

Benediction.

Chairman Seward: The audience will rise for the benediction.

Rev. Edgar Tilton, Jr., D. D.: Now may the peace of God, which passeth all understanding, keep your hearts and minds in the knowledge and love of God, and of His son Jesus Christ our Lord, and the blessing of God Almighty, the Father, the Son and Holy Spirit, be and remain with you always. Amen.

APPENDIX E.

A BRIEF HISTORY OF CITY HALL PARK, NEW YORK, BY EDWARD HAGAMAN, L. H. M., L. H. D.

City Hall and Park, New York, in 1838. See Page 385.

AN HISTORICAL SKETCH OF CITY HALL PARK.

As stated on page 52 of this report, the American Scenic and Historic Preservation Society during the past year has strongly opposed the erection of a new county courthouse in City Hall Park, New York. With a view to showing the strong historical interest which attaches to this old public place, the following brief history has been prepared:

City Hall Park has been known at various periods as the Vlacte or Flat, the Second Plains, the Common, the Fields, the Green, the Square, the Park, and finally City Hall Park.

During the Dutch regime the Vlacte was part of the unappropriated lands of Manhattan Island and was used as a common for the pasturage of cattle.

English Regime — Title Vests in the City.

The title of this area was given to the Corporation of the City of New York in 1686 by the terms of the Dongan Charter, which says: "I do by these presents give and grant unto the said Mayor, Aldermen and Commonalty of the said City of New York all the waste vacant unpatented and unappropriated lands lyeing and being within the said City of New York and on Manhattan's Island aforesaid extending and reaching to the low water mark," etc. At this period the Common was a wild, uncultivated tract, on the outskirts of civilization.

Delimitation of the Park.

The outlining of the form of the Park was a process of gradual evolution. The first boundary was made by the rambling old Post road which came down approximately along the line of the Bowery and Chatham street (now Park Row) to Broadway, just south of the present post-office. This road followed one of the routes designated in the act of June 19, 1703, entitled "An act for the Laying out Regulateing Clearing and Preserving Publick Comon highways thro'out this Colony." According to the survey of the commissioners filed June 16, 1707, it was "to begin from the gate at

Spring Garden to Fresh Water, the course east by north." The Spring Garden occupied the southern half of the site of the present St. Paul Building opposite St. Paul's chapel, its northern fence beginning at the obtuse angle of the front of that building, 39.8 feet from Ann street. Fresh Water was the pond on the site of the City Prison and Criminal Courts Building. Its outlet ran about along the line of Roosevelt street. The Common Council ordered this road to be surveyed and laid out two or three times after the original survey. The road was named Chatham street in 1774.

The western boundary of the future park was indicated in the first half of the eighteenth century by a farm road which, running between the King's farm on the west and the Common on the east, extended from the junction of the Post road with Broadway at the present Vesey street northward to Anthony Rutger's farm at about Worth street (formerly Anthony street). On this road, extending along almost the entire length of the present Park, was a rope-walk which appears on a map of 1728 without the owner's name. On a map of 1730 it is called Dugdale & Searls' rope-walk and on a map of 1742 Van Pelt's. It stood in what is now Broadway.

Fifty-three years after the highway was surveyed on one side of the Common, Broadway (at first called Great George street) was laid out on the other side. The Common Council minutes of June 12, 1760, contain the following record: "Mr. Marschalk, one of the City Surveyors, produced to this board the draft or plan of a road which he hath lately laid out by direction of the Corporation, in the West Ward of the City and is in the following manner: vix, Beginning from the Spring Garden House where the street is now of the breadth of 82 feet 6 inches, and extending from thence north 37 degrees 30 minutes east until it comes to the ground of the late widow Rutgers, leaving the street thereof 50 feet in breadth, which is approved by this Board."

Between these two diverging highways, property boundaries at and immediately north of the present Chambers street were indefinite and the Common gradually merged into the negroes' burial

ground and private land beyond. In June, 1796, the boundaries were adjusted by the establishment of Chambers street, thus completing substantially the triangular outline of the Park. The small triangle at present bounded by Center street, Chambers street, and Park Row was a part of the original Common, but was gradually worn away, and finally, in 1835, the Board of Aldermen voted that Center street be opened from Chatham to Pearl street 75 feet wide; and that the grounds between Tryon Row and the old Hall of Records be thrown open to the public and be made a part of Center street. In 1852 the intersection of Chatham street and Center street was widened, the railing and coping of the Park from the old Hall of Records northward being set back 9½ feet. From that point to the south end of the Park the curb was also set back a few feet; and from time to time other alterations have been made in the fence and curb lines. In 1867, as more fully stated elsewhere, came the crowning disaster to the Park when the southern end was cut off and sold to the Federal Government for a Post-office.

A Place of Execution.

Returning now to the period prior to this delimitation when the area thus included was a formless Common, we may recall the uses to which it was successively devoted and trace its physical development to the Park of to-day.

During the latter part of the seventeenth and first half of the eighteenth century, this remote and unimproved tract was considered an appropriate place for the expiation of capital crimes. It is believed that Lieutenant-Governor Leisler and his son-in-law, Jacob Milborne, who were executed for alleged treason in 1691, were hanged in the Common nearly opposite the place of their burial. The latter was opposite City Hall Park across Park Row on the Leisler estate, the southern boundary of which was about 100 feet south of Frankfort street. (Hoffman's "Rights of the Corporation.") Gallows were erected "at the usual place of execution on the Commons" from time to time as occasion required. Resolutions to that effect may be found in the proceedings of the

Common Council in December, 1725, June, 1727, and doubtless many other dates. On May 5, 1756, the Common Council ordered the gallows removed "to the place where the negroes were burnt some five years ago at the foot of the hill called Catiemuts Hill near the Fresh Water." The Fresh Water was a pond on the site of the present City Prison and Criminal Courts Building.

The First Building — 1728–1776.

The first building within the area of the present Park appears on the map of 1728 on the western margin of the Common about opposite what is now Murray street. It stood in front of the middle of the rope-walk, from which it was separated by an interval of only 40 or 50 feet and to which it apparently belonged. This or some other small building appears on this site up to the building of the Bridewell in 1776.

The First Almshouse — 1736–1797.

The first *public* building was an Almshouse which was erected in 1736 on the site of the present City Hall. To distinguish this building from its successor, we will call it the first Almshouse. An advertisement in that year invites proposals from suitable persons, stating the terms on which they will perform the duties of Keeper of the House of Correction and Overseer of the Poor-house and Workhouse. Adjacent to the Almshouse were two small outhouses. In 1757, a small piece of ground "of the length of two boards" to the eastward of the workhouse fence was ordered to be inclosed for a burial place for the poor of that institution. This Almshouse remained standing until the second Almshouse was completed in its rear in 1797 when it was demolished.

City Wall, Blockhouse and Powder Magazine — 1745.

In 1745, the year after France had declared war against England, the citizens of New York, fearing an attack by the French, put the city in a posture of defense. Among the fortifications erected was a wall of palisades, similar to that which gave the name to Wall street. The second city wall, however, was built

farther north, beginning at Mr. Desbrosses' house (No. 57 Cherry street) and crossing the island in a zigzag course to the North river near the foot of Chambers street. It was built of cedar logs fourteen feet long, and was perforated with loopholes for musketry. Within the wall was a banquet four feet high and four feed wide. Six blockhouses with portholes for cannon were situated at commanding angles, and strong gateways were built at the intersection of the wall with the Post road, Broadway and Greenwich road. One of these blockhouses and gateways was in the angle of the wall at Broadway and Chambers street. David Grim, who was living at the time when the wall was built, has recorded that in 1746 a large party of Mohawk and Oneida Indians came down the Hudson river in their canoes, landed near the foot of Laight street, and passed through the Broadway gate on their way to have an interview with Governor Clinton on Bowling Green. About the time when the wall was erected, a powder magazine was built on the Common a short distance southeast of the Almshouse. The powder magazine appears on Marschalk's survey of 1755 and again on Montresor's survey of 1775.

The New Gaol — Old Hall of Records — 1757–1903.

In 1757, the Common Council appointed a committee to purchase materials for a new gaol to be erected just east of the first Almshouse on the Common and instructed it to proceed with all speed to construct the same. At that time and for several years previously, the basement and garret of the old City Hall which stood at Wall and Nassau streets on the site of the present United States Sub-Treasury had afforded ample accommodations for transgressors of the law; but the city was growing in wickedness as it was growing in population and it was decided to erect more commodious quarters on the Common. This building, which stood 135 feet east of the present City Hall and which, at the time of its demolition in 1903, was the oldest municipal building in town, had a varied and stirring history, being known at various periods at the New Gaol, the Debtors Prison, the Provost, the Register's office, and lastly the Hall of Records. Originally it was a square

stone building about 60 by 75 feet in size, three stories high and facing, as the present City Hall faces, west of south.

The basement consisted of three rows of three arched vaults each, varying from 15 by 19 feet to 18 by 28½ feet in size. The arches were 9 feet high in the center, built of brick and rested on stone foundations 3 feet thick and stone piers 7 feet 8 inches square at the base. The partition walls of the cellar were 2 feet thick. There appear to have been no exterior openings to these dungeons originally. The doorways connecting them were closed with heavy doors. Above the ground the building was constructed of rough stone three stories high. A picture of the period shows the entrance in the middle of the first story on the southwestern face, with two windows on either side, and five windows each in the second and third stories. The side view shows four windows in each story. The roof was square, with a pediment and four dormer windows in the front view and four dormer windows in the side view. Above the center of the roof arose a cupola which contained a bell. This bell was used to give alarms of fire, the location of the fire being indicated at night by a lantern suspended from a pole protruding from the cupola toward the endangered quarter. The building is said to have cost less than $12,000. It was the first one erected for exclusive use as a jail. It was an imposing edifice in its day, and, standing as it did the most conspicuous object to the traveler as he entered the town by the old Boston High Road, was a powerful admonition to all comers to lead a sober, righteous, and upright life — and to pay their debts. The latter was by no means the least important of its warnings, for in those days they had not adopted the modern beneficent bankrupt law by which a man can swear off his superfluous financial obligations and begin life anew with a clean ledger, if not a clear conscience. At that time the law permitted a creditor to cast a debtor into prison, a proceeding which, if it curtailed the debtor's money-earning capacity, at least gave the creditor the consolation to be derived from the knowledge that he was not the only person suffering inconvenience.

That there were many creditors ready to take that sort of satisfaction is evident from the fact that the New Gaol soon came to be known as the Debtor's Prison. A notice in Gaines' Gazette and Mercury of July 27, 1772, indicates that the public hospitality extended by the Gaol was not of the most comfortable kind, and was supplemented by the kind offices of a sympathetic and "respectable publick." "The Debtors confined in the Gaol of The City of New York" — so the notice runs —"impressed with a grateful sense of the obligations they are under to a respectable publick for the generous contributions that have been made to them, beg leave to return their hearty thanks, particularly to the worshipful the Corporation of The City of New York, the reverend the Clergy of the English, Dutch and Presbyterian Churches and their respective congregations, by whose generous donations they have been comfortably supported during the last winter and preserved from perishing in a dreary prison with hunger and cold."

In 1764, the Common Council authorized the committee on the New Gaol to erect opposite the Gaol a public whipping post, stocks, cage and pillory "in such manner as they shall think proper."

After the Revolutionary War the building continued to be used as a city prison until 1830. By that time the city had come to need better quarters for its public records and a committee of the Common Council selected the old Gaol for such use. About $15,000 was then spent in remodeling and refitting it. The original three stories were transformed into two by changing the floors and windows; the cupola and the roof with its dormer windows were removed and a flat roof substituted; and the building was lengthened at each end about seventeen feet by the addition of a Grecian portico and steps. The six columns of each portico were of the Ionic order, and supported a perfectly plain entablature and pediment. These changes having been made, the rough stone exterior was nicely smoothed over with a uniform coating of stucco, and the whole transformation was alleged to have given the one-time Gaol something of the classic beauty of the Doric Temple

of Diana at Ephesus — one of the Seven Wonders of the World. The result, however, was an architectural nondescript, possessing neither the substantial simplicity of the original building nor any recognizable resemblance to the beautiful heathen temple of the Goddess of the Silver Bow,* which it was supposed to imitate. The old bell that was used to sound the primitive fire alarms was placed over the neighboring Bridewell. When the Bridewell was removed, in 1838, the bell continued to ring out its alarms from the roof of Naiad Hose Company, in Beaver street, until, a short time later, it was destroyed by the element against which for so many years it had given its warnings.

In 1832, while the reconstruction was in progress, an epidemic of cholera broke out in the city, driving many of the inhabitants to the outlying villages and paralyzing business. During the prevalence of the scourge, the work of remodelling the Gaol was suspended, and it was used temporarily for a hospital.

Upon the completion of the repairs it was occupied by municipal offices and became the depository of the city records. Within twenty-five years, however, even these accommodations were outgrown, and in 1858 the Surrogate was obliged to move to other quarters. In the following year the Street Commissioner followed suit, and in 1869 the Comptroller evacuated, after which time the building was in sole possession of the City Register, and was known indifferently as the Register's Office and the Hall of Records.

During the supremacy of the Tweed ring (some of whom may well have desired to obliterate any possible suggestion of the original character of the building) the city fathers spent $140,000 more on the ancient gaol. Their "improvements" consisted of the erection of another story above Diana's entablature and pediment, and the further enlargement of the interior accommodations by the simple expedient of filling up the inter-spaces between the

*As in the case of the famous Ephesian temple, the destroyer of the old Hall of Records will be remembered while its builder is forgotten. It is conceded, however, that the motives inspiring Herostratus and McDonald were quite different.

columns of the southwestern portico so that these columns were converted in appearance from pillars to pilasters.

In 1897, the City Government made provision for the erection of the new Hall of Records on the north side of Chambers street, and in December, 1897, the Board of Aldermen voted to place the historic old building, when vacated, in the care of the National Historical Museum for use as a public museum of historical relics. Soon thereafter, the underground rapid transit tunnel was begun, and the Subway Commission, desiring to locate one of its stations opposite the Brooklyn Bridge, applied for the removal of the old Hall of Records. The demolition of this old building, hallowed by the sufferings of American patriots during the Revolution and many other traditions, was earnestly opposed by the American Scenic and Historic Preservation Society and other civic and patriotic organizations and a strong sentiment of opposition was also voiced in the press; but an application was made to the Supreme Court for the removal of the building on the affidavits of Inspectors of the Department of Buildings alleging that the building was "unsafe" and "dangerous to life" — a condition which was not apparent to others who inspected the building at the time. After earnest arguments in opposition, however, Justice Leventritt announced on October 10, 1902, that he would issue an order for its demolition, and by April, 1903, the sunlight was shining into the uncovered dungeons of the cellar in which Continental soldiers had suffered for their Country's sake.

The Upper Barracks — 1757–1790.

In the same year (1757) in which the New Gaol was erected, some military barracks, known as the Upper Barracks to distinguish them from those at the Battery, were erected on the south side of the present Chambers street partly on the site of the present Courthouses. The Common Council records show that the committee appointed to confer with the carpenters building the barracks reported the following resolution:

Ordered, That the said building be forthwith carried on under the direction and inspection of the above-named committee, who

are hereby empowered to treat with such persons and provide such materials for the carrying on and completing said work as they shall judge proper; and further ordered, that the said building contain 20 rooms on a floor, two stories high, to be 21 feet square, 420 feet long, and 21 feet wide, etc.

During the Revolution, to accommodate the increased number of the King troops, two other long buildings were erected between the Bridewell (which stood west of the first almshouse) and the original barracks on Chambers street. In 1784, the year following the evacuation of the city by the British, the barracks were leased to various persons for residences. In 1790 the Common Council ordered that the treasurer sell the barracks before April 20th, the purchaser to remove all the materials by June 1st.

The Bridewell—1775–1838.

On March 17, 1775, the Common Council approved plans for a new Bridewell drawn by Theophilus Hardenbrook. This building was erected between the first Almshouse and Broadway and was finished in April, 1776. This institution was erected with the aid of a lottery, and the Treasurer of the City was authorized to take 1,000 tickets of the lottery "on and for the risque of the Corporation."

This building, which made some pretense of architectural attractiveness, was built of dark gray stone. The central portion, which had a pediment in front and rear, was three stories high, while the wings were two stories high. It was used as a prison for American soldiers during the Revolution. On January 4, 1777, according to the authority of N. Murray, there were 800 men in the Bridewell, and to reduce their numbers, it was alleged that the doctors gave them poison powders.

The prison was demolished in 1838 and furnished some of the material used in the Tomb's Prison which was then in course of construction, in Center street. "Thus," says David T. Valentine, "for a similar use but in different form is it 'permitted to visit the pale glimpse of the moon.'"

The Second Almshouse — 1797–1857.

In 1794, the Common Council resolved to apply to the Legislature for leave to establish a lottery to raise $10,000 for a new Almshouse (which, by way of distinction, we will call the second Almshouse) to take the place of the first one which had become ruinous and unfit for use. In 1796 it was resolved to erect the second Almshouse to the north of the first house and on the site now occupied by the County Courthouse. In 1797, the second Almshouse was ready for occupation and Mr. Harsen was instructed to take down the first one. In 1812, the functions of the Almshouse were transferred to the new buildings erected for that purpose at Bellevue and the vacated building, under the name of the New York Institution, was devoted to various enterprises of a public or semi-public nature. Among the various institutions harbored therein were the New York Historical Society, the Academy of Arts, the Academy of Painting under charge of Alexander Robinson, the American Institute and the City Library. John Scudder's American Museum moved into the west end of the building in 1816. The Deaf and Dumb Institute, incorporated in 1817, opened its school in this building in 1818 and continued therein until 1828. The Lyceum of Natural History, incorporated in 1818, also made its home there. On March 26, 1818, the Chambers Street Savings Bank, the first bank for savings, opened for business in the basement. In 1824 the first Egyptian mummy ever brought to this country was exhibited here. In 1832, rooms were assigned in the building for the use of the United States courts. In 1857, a year of great financial distress, the building was finally torn down, partly to relieve distress by giving work to the unemployed.

The City Hall — 1803–1910.

The next building in historical order erected in City Hall Park was the City Hall itself. On the map of 1803 it appears plotted on the site of the first Almshouse (its present location) as "the new courthouse." The first City Hall or Stadt Huys stood at

No. 73 Pearl street. The second stood on the site of the present United States Sub-Treasury at Nassau and Wall streets.

The first foundation stone of the third and present City Hall was laid by Mayor Edward Livingston, September 20, 1803, when City Hall Park was on the outskirts of the city. The plans were by Macomb & Mangin. The names of the building committee, clerk, sculptor, architect, master stone cutter, master masons, and master carpenter, are engraved on two marble slabs now set up in the main corridor of the building as mural tablets. The edifice is a beautiful structure in the style of the Italian Renaissance, 216 feet long by 105 deep. The south front and sides are of Stockbridge, Mass., marble, but the rear was built of brownstone from motives of economy and in the belief that the city would not grow so as to extend to the northward of the building. When completed it was pronounced the finest public edifice in the United States. From 1803 to 1814, both inclusive, the sum of $538,733 was spent on the erection of the building.

The city government first met in this City Hall on August 12, 1811,* while it was yet uncompleted. The fininshing touches were not put on the building until 1812. (Further details concerning the erection of the City Hall and the historical incidents connected therewith may be found in the Ninth Annual Report (1904) of the American Scenic and Historic Preservation Society).

Dispensary and Firehouses — 1807–1906.

Upon the map of 1807 there appears on Center street near Chambers street, where, until recently, a firehouse stood, a city Dispensary and Soup House, established by the Almshouse Com-

* Upon erroneous data, it was stated in the 9th Annual Report of this Society and repeated in the pamphlet on the subject of the City Hall Park issued by the Society in April, 1910, that the first meeting of the City Government in the present City Hall was held on July 4, 1810. The original records of the Common Council show that on July 1, 1811, it was voted that "on their adjournment they would meet on the 4th inst. at the new City Hall." This resolution, however, was not carried out. On July 15, 1811, it was voted that "on the 2d Monday of August next, the Common Council meet for public business at the new City Hall in the room intended for the Mayor's office." Accordingly, on August 12, 1811, "the Common Council met agreeably to adjournment in the new City Hall in the room designed for the Mayor's office."

missioners. A little later the building was shared by the dispensary and a hook and ladder company, such being the case in 1835. About 1852 a brown stone building 55 by 70 feet in size was erected on this site. The first story was devoted to fire and hose companies, and the second story to the Fourth and Sixth Ward Courts and other public uses. This building was vacated December 31, 1905, and demolished in March, 1906. In June, 1859, contracts were awarded for a building between the brownstone building on the corner and the old Hall of Records to accommodate the steam fire engines and for Engine Compnay No. 42, but it was only a temporary frame structure and did not remain many years.

The Rotunda — 1818–1870.

About the year 1818, a building called the Rotunda was erected on Chambers street, east of the second almshouse. At the time of its removal in 1870, it stood between the present city courthouse and the fire-engine house which was removed in 1906. There was no space between it and the city courthouse on the west and only an alleyway between it and the engine-house on the east. The Rotunda, originally a circular, dome-like structure, 54 feet in diameter, sometimes called the roundhouse, was erected by subscription for an art gallery at the instance of John Vanderlyn, the artist, to whom the city granted the use of the ground free for a period of ten years upon condition that at the end of that period the building should become the property of the city. Panoramic views of the Battle of Waterloo, the Palace and Garden of Versailles, the City of Mexico, etc., were among the pictures represented. After the great fire in the lower part of the city in 1835, the post-office moved into the rotunda, and continued there until 1845. On July 24, 1848, the Common Council directed the New York Gallery of Fine Arts, which then occupied the Rotunda, to vacate the premises within ten days; and in August the sum of $2,000 was appropriated for the purpose of converting the Rotunda into public offices. In the course of time the exterior appearance of the

building was changed and its interior accommodations were enlarged by additions which squared it out on the north and south sides. On the south side the addition of a portico with four Doric columns gave it quite a classical aspect. When the newly created Board of Park Commissioners entered upon their duties in May, 1870, they gave City Hall Park particular attention, taking away the old iron fence which surrounded the Park, removing the rubbish in the northwest corner left from the building of the county courthouse, improving the unsightly conditions at the south caused by the building of the post-office, and removing the Rotunda and an old fire-engine house in the northeast corner. At the time of its removal the Rotunda had been occupied for twenty years by the Croton aqueduct board in company with various other municipal offices.

City Courthouse — 1852–1910.

On June 5, 1851, the Mayor approved a resolution awarding contracts to the lowest bidders for a three-story building to be erected "between the new City Hall and the Rotunda for Court rooms and offices, and that said building be completed on or before the 1st of May, 1852." At the same time, $96,716 was appropriated for the erection of the building. This building, mentioned in the old municipal registers as "No. 32 Chambers Street" was erected on the west of and close to the Rotunda. It is still standing bearing the inscription: "Erected A. D. 1852. William Adams, Commissioner; Job L. Black, Superintendent Public Buildings." It is about 75 by 105 feet in size. In 1904 an additional story was added, and it is now 4½ stories high.

This building has variously been known as the Marine Court, the Court of Sessions, and the City Court.

The County Courthouse — 1861–1910.

The County Courthouse, which fronts on Chambers street in the rear of the City Hall and the replacing of which is the subject of the present public agitation, was begun in 1861 and occupied in

1867, but it was not then and is not now completed. It is of Corinthian architecture, three stories high, 250 feet long and 150 feet wide. Its walls are of Massachusetts marble. It was designed to be crowned with a handsome dome, the summit of which was to be 210 feet above the sidewalk. Erected during the extravagant days of the Tweed Ring, after it had been the medium of legitimate expenditures and illegitimate peculations amounting to the enormous aggregate $16,000,000, the county stopped pouring money into this apparently bottomless financial pit and left the building incomplete. It has been variously occupied by State and county courts and several city departments. One of the singular contrasts so often encountered in history is presented by this building, which, erected upon the site originally dedicated to the relief of the poor as an almshouse, cost, according to common estimate, $16,000,000. This monumental piece of extravagance is popularly known as the Tweed courthouse.

The Post-office — 1875–1910.

In 1867, the city committed the lamentable mistake of parting with the southern end of City Hall Park for a United States post-office and courthouse, and the present building was occupied in 1875. As there appears to be in print no collated data concerning the post-office in New York city, it may not be inappropriate to give here a few facts concerning the establishment of the postal service as one catches occasional glimpses of it in the various records.

Concerning the postal service during the Dutch period, we have no data at hand. It is to be presumed that letters were carried informally by travelers and captains of vessels at such rates as the senders were willing to pay.

Early in the English regime, the office of the Governor's secretary in the old fort at the foot of Bowling Green appears to have been the depository of the post "bagg" where letters were received for despatch to their destinations out of town. Such was the case as early as 1672.

By letters-patent granted by William and Mary under the great seal of England, dated February 17, 1691, to Thomas Neal, the colonial postal service was established on a more systematic basis. This patent gave to Neal and his successors authority for twenty-one years to carry letters at such rates as the senders might agree to give. Andrew Hamilton was deputed to act as Postmaster-General for all their Majesties' plantations and colonies and by an act of the Colonial Assembly, passed November 11, 1692, was authorized to establish "a generall Letter office" in the city of New York "from which all Letter's and Packquet's whatsoever may be with Speed and Expedition Sent into any part of our Neighbouring Collony's and plantations on the main Land and Continent of America or to any other of their Majesties Kingdom's and Dominions beyond the Sea's," and he was authorized to appoint "one Master of the Said generall Letter office." The rates of postage were fixed at nine pence for a single letter to or from beyond the seas; nine pence for a letter between New York and Boston or between New York and Maryland; twelve pence between New York and Virginia, and four and one-half pence between New York and any place not exceeding eighty miles distance. This law was renewed from time to time, with changes in the rates, for several years.

For over a century — during the remainder of the English regime and the beginning of the American — the post-office itself was an extremely rudimentary establishment, generally maintained at the residence of the postmaster. It was also a very nomadic institution, moving from place to place with the changes of postmaster. The New York Gazette of July 30, 1753, for instance, gives notice that "The Postoffice will be removed on Thursday next to the house of Mr. Alexander Colden opposite to the Bowling Green in the Broad-Way where the Rev'd Mr. Pemberton lately lived."

The first postmaster of the city after the Revolution was Sebastian Bauman, appointed by President Washington, and the post-office was then located in his residence at the corner of Wil-

liam street and Garden street (now Exchange place). In 1807 the postmaster was Gen. Theodore Bailey, who had taken up his residence in the same house and continued the post-office there. The post-office then consisted of a room about twenty-five or thirty feet deep, having two windows fronting on Garden street and a little vestibule on William street containing about 100 boxes.

The post-office remained at the latter site until July 4, 1827, when it was removed to the basement of the new Exchange in Wall street, which had been opened May 1st of that year. The Exchange was burned in the great fire of 1835. Then the post office was removed to the Rotunda in the northeastern corner of City Hall Park. This location gave great dissatisfaction to business men at that time on account of its *great distance* from the business center of the town. In 1845, the post-office was moved from the Rotunda to the Middle Dutch church which occupied the block on the eastern side of Nassau street from Cedar street to Liberty street. Upon the building of the Mutual Life Insurance Company of New York, which now occupies that site, is a tablet reading as follows:

Here stood
the Middle Dutch Church
Dedicated 1729
Made a British Military Prison 1776
Restored 1790
Occupied as the United States Postoffice
1845–1875
Taken down 1882
The Mutual Life Insurance Co.
of New York.

As early as 1853, the post-office had become so inadequate that the United States began to look around for a new site. In April and May, 1857, the Mayor was authorized by the Common Council to negotiate with the Federal authorities for the cession of the land at the southern angle of the park or a portion of the upper part of the park fronting Chambers street between Broadway and Center street, for a new post-office, but nothing definite was effected and in 1861 came the interruption of the Civil War.

Immediately after the war, efforts were renewed to find a site and the lower end of City Hall Park was chosen. On December 15, 17 and 18, 1866, respectively, the Councilmen, Aldermen and Mayor of the city consented to the sale of the site embracing an area of 65,259 square feet, for the purposes of a United States post-office and courthouse. The property was conveyed by the Mayor, Aldermen and Commonalty of the City of New York, parties of the first part, to the United States of America, parties of the second part, by deed dated April 11, 1867 (liber 1012, page 142 *et seq.,* of conveyances, Hall of Records), the consideration being the sum of $500,000. The conveyance was made

"Upon the express condition, however, that the premises above described and every part and parcel thereof, and any building that may be erected thereon shall at all times hereafter be used and occupied exclusively as and for a postoffice and court-house for the United States of America and for no other purpose whatever, and upon the further condition that if the said premises shall at any time or times cease to be used for the purposes above-limited or for some one of them or if the same shall be used for any other purposes than those above specified, the said premises hereby conveyed and all right, title, estate and interest therein shall revert to and be reinvested in the said parties of the first part, their successors and assigns and the said parties of the first part shall thereupon become the absolute owners of the said premises and every part thereof with the appurtenances and they may then re-enter the said premises and forever thereafter use, occupy or alien the said premises and every part thereof in the same manner and to the same extent as if these presents had not been executed."

A gentleman who was intimately acquainted with William M. Tweed has written to the author of this monograph in regard to the post-office transaction as follows: "Mr. Tweed told me that he himself arranged the transfer because they expected to control the Government," etc.

The erection of the post-office was not begun at once and it was proposed to use another part of the park for the purpose. On

June 17, July 19 and 20, 1869, respectively, the Aldermen, Assistant Aldermen and Mayor approved of the following resolution:

"Resolved that a joint committee of three members of each Board be appointed by the respective Presidents thereof to confer with Messrs. Horace Greeley, William Orton and Alexander T. Stewart, Commissioners on the part of the United States, respecting a proposed exchange of the 65,259 square feet of land in the City Hall Park heretofore deeded by the City to the United States for another plot of ground of similar area at a different location in said park which proposed exchange has been recently authorized to the city by the Legislature and requested on behalf of the United States by the above named Commissioners."

The foregoing resolution is interesting as indicating the names of the representatives of the United States government in the post-office matter, but it did not result in any change of plan. The present post-office was begun in 1870 and was first occupied August 25, 1875. The building cost between $6,000,000 and $7,000,000. This edifice, in turn, is already outgrown and inadequate for the transaction of the business of the general post-office, and a new post-office in another part of the city is being planned. In view of these plans, it is to be hoped that the municipal authorities will bear in mind and enforce the conditions of the deed to the United States, which provide that the present post-office site shall revert to the city when any part of it shall cease to be used for a United States post-office and courthouse or shall be used for any other purpose. Indeed it is a question whether the Federal government's tenure has not already been forfeited by the use of the building for a private library, and we are informed that the Hon. George B. McClellan, during his recent incumbency as Mayor of the city, gave notice to the Federal government of the latter's violation of the conditions of the deed.

Building Propositions Rejected.

Not every building proposed to be erected in City Hall park has materialized. On August 19, 1771, a proposition to erect a public market in the fields was voted down by the Common Council by a vote of 11 to 4. In October the proposition was renewed but was again voted down.

During Mayor Paulding's incumbency in 1824 it was proposed to remove to the North river the Bridewell and jail which stood on either side of the City Hall and to construct two-story houses in the park facing Chatham street (Park row) and lease them for the sake of the revenue which the city might derive.

On another occasion it was proposed to erect a city hospital near the Bridewell and the corporation actually voted to give the land for the purpose, but public sentiment was so strongly opposed to the project that the action was rescinded.

At still another time, early in the last century, it was proposed to erect a reservoir in the park for the purpose of supplying the city with water from the Bronx river.

In 1888, the Legislature authorized a commission to select a site in the neighborhood of the county courthouse for a municipal building. The proposition to locate the building in the City Hall park was indignantly resented and for several years, as stated elsewhere (page 54) there was a "tug of war" between the Commission and the people. At one time the Commission would get the advantage with a law permitting the building in the park. Then the remonstrants would prove the stronger and drag the Commissioners from their ground by an amendment excluding them from the park. After several oscillations of fortune, the protestants finally won and the Municipal building was located, where it is now in course of construction, on the triangle at Center street and Park row.

Park Improvements.

As the city grew in population and the structures erected upon the old Common grew more pretentious, a natural desire to im-

prove the grounds gradually found expression until the wild and uncultivated cow-pasture of colonial days became, just before the Civil War, one of the most beautiful city parks in America. Perhaps the first intimation of the increasing dignity of the Common is afforded by Col. John Montresor's map of 1775 which entitles the Fields "The intended Square, or Common." The names "the Fields" and "the Common," however, still continued in popular use at this period, with the occasional use of the name "the Green." Montresor's reference to "the Intended Square" was evidently due to some serious plan for the improvement of the Common, as appears from a letter signed "Agricola" which appeared in the Pennsylvania Packet of December 2, 1784. This letter reads as follows:

N. Y. Nov. 27

Mr. Loudon

The reading in your last Monday's Gazette an abstract of a letter from Boston, made me remember a plan for embellishing and planting the Fields, which was proposed about fifteen years ago. Had that useful idea been adopted, what a delightful summer walk would the inhabitants of this town now enjoy! who on a hot day know not where to direct their steps, to avoid dust and procure themselves a shade — to what a pitch the grounds in the neighborhood would have arisen; and what a number of elegant houses would have been erected in that airy vicinity. It is never too late to think, to wish and to do good; Mr. Loudon, I propose therefore, that you should sound the alarm bell, that you should proclaim, exclaim, and claim the attention of the public, that you should induce three or four popular, zealous and influential persons to set a subscription on foot, to plant and fence in next Spring that triangular spot so well known under the appellation of the Fields; which I think it would not be amiss to call *Washington's Mall* — that in the middle a handsome obelisk should be erected, with a sun dial on one side, and whatever other inscription the public might think proper on the other,— that the honorable the corporation should be strongly invited to encourage this simple and necessary improvement. Every well-policed and governed town should be kept clean, to have public fountains of good and wholesome water, and several public walks; these are great and necessary blessings in the sum-

mer season; therefore Mr. Loudon, cease not all this winter to preach this good doctrine in your newspaper, perhaps what I now send you will be a grain of mustard sown in a good soil, — may it by good cultivation become a large unbrageous tree, for the use of the public. Thus prayeth your friend

Agricola.

Miss Julia Post Mitchell of New York, to whom we are indebted for the foregoing quotation, says that there is good reason to think that this letter was written to Mr. Loudon, the editor of the New York Gazette, by Lieut. John de Crevecœur, the Consul from France to the States of New York, New Jersey and Connecticut. He arrived in New York city in November, 1783, and interested himself incessantly in public matters of all sorts. As a former resident and naturalized citizen of this country (about twenty years earlier) he had a right to an opinion on the use of the Fields. He contributed a series of agricultural articles to American gazettes from 1783 to 1790 over the signature of "Agricola" which title he had earned by the publication in London in 1782 of his famous book entitled "Letters of an American Farmer." He was also successful in establishing two botanical gardens about this time, one at New Haven, and one at Bergen Neck, now Jersey City.

In this early advocacy of city improvements by Crevecœur appears the artistic instinct of the Frenchman which is also reflected so conspicuously in the beautiful plan of the city of Washington laid out by Major L'Enfant, a companion-in-arms of Lafayette. The city authorities, however, were slow to appreciate the value of Crevecœur's suggestion and took the matter up in a dull, sluggish way. In June, 1785, the Common Council approved the plan of the almshouse commissioners to inclose the Fields with a fence "if it could be done without expense to the Corporation." It is not surprising, perhaps, that upon these economical terms the fence failed to materialize. In 1787 the improvement of the Green advanced a stage farther when the Council ordered that the paupers in the almshouse be employed in collecting street dirt and

spreading it on the Common in front of the almshouse, to manure the ground and prepare it for grass seed.

In 1792, the Fields were inclosed for the first time with a fence of posts and rails. In 1797, when the structural incumbrances of the Fields had been reduced to the second Almshouse, the Gaol and the Bridewell, and when the Fields were surrounded by a rail fence, the old Common first appears on the map under the dignified title of "The Park."

Early in the last century the Park was beautified by tree-planting as appears from a little book entitled "A Picture of New York" (1807), by Dr. Samuel L. Mitchill, which, referring to the "beautiful grove" in front of the City Hall which was then in course of erection, says:

"The Park is a piece of inclosed ground situated between Broadway and Chatham Street, in front of the new City-Hall. The area consists of about four acres, planted with elms, planes, willows and catalpas and a surrounding foot-walk is encompassed with rows of poplars."

In the course of time the rail fence around the park was superseded by one of wooden-palings, and then, as the civic pride increased, nothing less than an imported iron fence would do. On December 31, 1821, the iron railing for the park arrived from England. In order to avoid duty, it was complete only in parts. When the fence was erected, it had at the southern gateway four marble pillars, surmounted by iron scroll-work supporting lanterns. Coins and other mementoes were deposited in one of them. The completion of the improvement was celebrated with public exercises, including the delivery of an address by Dr. Samuel L. Mitchill. More trees were then set out in the inclosure, and two generous ladies — Mrs. Sages of their day — gave rose-bushes which were planted within the railings and withstood the frosts of winter, the vandalism of boys and the depredations of flower-thieves for more than a year.

In 1832, the superintendent of buildings was directed to cause the grass plats in the park to be surrounded with iron chains sup-

ported on turned locust posts; and in 1834, some of the walks in front of the City Hall from Broadway to Chatham street were laid with flag-stones two feet wide. When the Croton Water Works were nearing completion, a beautiful fountain was erected in the lower part of the park. Its basin was 100 feet in diameter according to Phelps' Guide (1853.) This portion of the park, now obliterated by the post-office, was then tastefully laid out with gravel walks and adorned with trees. On October 14, 1842, the climax was reached when amid a celebration such as the city had never before witnessed and with demonstrations of joyful popular enthusiasm seldom if ever excelled, the Croton water arrived and gushed forth from the fountain. The procession on this occasion, estimated to be seven miles long, was reviewed at the park by the Mayor and Aldermen. Here the water-works were formally delivered to the city. A brilliant illumination in the evening ended the festivities. For days the great fountain continued to be an object of extraordinary curiosity, and for years it added grace and beauty to the supremest period of this once beautiful park. The fountain was so important a feature of the park at that time that a special office was created for its care. Thus we read, in 1848, for instance, that Thomas Cole was appointed "Keeper of the Park Fountain."

From this time on, until the sale of the post-office site, the park was the object of minor improvements, such as the substitution of iron posts for the entrance gates in 1852 to facilitate ingress and egress, but nothing could be done materially to enhance its beauty. Then came the post-office on the south and the county courthouse on the north and the park was reduced to its present disennobled proportions.

Historical Events — Aboriginal Period.

Having now reviewed the history of the physical development of the park and its buildings, we may return to the beginning and glance briefly at the history of the spot.

It has been surmised* that before the advent of Europeans, this was the site of one of the villages of the Manhattan Island Indians. The eligible situation of this comparatively level tract, sloping downward on all sides — to the Lispenard meadows and swamps and the Fresh Water pond on the north, the Beekman swamps on the east, and the slightly lower land on the south and west — would have made it a desirable location for a village, and the finding of a large admixture of oyster shells of apparent age in the soil would tend to indicate the presence or proximity of aboriginal occupancy at some time, but there is no positive evidence that there was a village here.

Historical Events — Dutch Period — 1626–1673.

During the Dutch period, the Common was one of the parade grounds of the soldiers when they marched up from Fort Amsterdam on training days.

In 1664, when the little city of New Amsterdam was captured by the English, the troops of the latter who remained in the Bowery until the Dutch had evacuated the fort marched down over this tract.

In 1673, when the Dutch fleet under Capt. Anthony Colve arrived to repossess the city, the Dutch captain landed 600 men on the island and put them in battle array on the Common in preparation for the march on the city, which then lay below the city wall at Wall street. Captain Manning, who commanded the city, sent Captain Carr, Thomas Lovelace and Thomas Gibbs to negotiate terms with Colve, but the latter detained Lovelace and Gibbs as hostages on the Common and sent Carr back to the fort with a summons to surrender within a quarter of an hour. No reply being received, Colve in a passion ordered his men to march from the Common to the fort. They proceeded down Broadway, and as they approached the fort they were met by a messenger from the English commander who offered to surrender if the gar-

* D. T. Valentine in the Corporation Manual for 1856.

rison were allowed to march out with the honors of war. The request was granted and the city again changed hands.

Under the second Dutch regime the Commons became the place of general parade.

Historical Events—English Period, 1674 *to* 1765.

Under the English, the Common continued to be a popular rallying place, particularly on festive occasions. This was more especially the case after the old parade ground in front of the fort was authorized in 1732 to be inclosed as a Bowling Green, thus forming the first city park. On the Common, the King's birthday, the anniversary of the discovery of the Gunpowder Plot, and other festive occasions were observed with bonfires and other demonstrations of loyalty or joy. But the demonstrations began to assume a different color in 1764 when a press gang's boat was seized by a mob who carried it to the Common and burned it.

Another stirring event of that year was the arrest and incarceration of Major Rogers of the King's troops in the New Gaol. The gallant Major had been cutting a pretty prominent figure in the town, and living beyond his means, until his creditors became tired of airy promises to pay and put him in prison. His comrades, stationed in the neighboring barracks, took his arrest as an insult to His Majesty's arms and an infringement of their superior authority, and demanded his release. The jailer shook his keys contemptuously at the enraged soldiers, and told them, in effect if not in words, that if they wanted their Major they would have to come and get him. This they proceeded to do, breaking open the jail doors with muskets and axes, releasing Rogers, and giving the other prisoners an opportunity to escape. The latter, however, standing more in awe of the civil power than their riotous and uninvited deliverers, declined to avail themselves of this temporary and unauthorized amnesty and remained in prison. The riot, which was finally quelled by the militia, cost the soldiers the life of one of their sergeants.

Historical Events — English Period — 1765–1775.

The next year, made memorable by the adoption of the Stamp Act, the Common became the stage upon which, in the succeeding decade, were enacted many scenes which foreshadowed the coming Revolution. On November 1, 1765, the first mass meeting in opposition to the Stamp Act was held here, being signalized by the erection of a gallows upon which the Lieutenant-Governor was burned in effigy. On the following day, another popular meeting was held with a view to seizing the stamps, but action was deferred. From that time until the repeal of the Stamp Act in March, 1766, other meetings of a similar character were held.

On June 4, 1766, a great meeting was held on the Common to celebrate the repeal of the obnoxious act. The jubilant populace erected a flag-staff inscribed "King, Pitt and Liberty," and further manifested its joy by consuming a roast ox, twenty-five barrels of ale, and a hogshead of rum punch.

For the peace of the community, however, it was not the most fortunate thing that the upper barracks, in which the King's troops were quartered, were so close to the rallying place of the Liberty Boys, and after the Liberty Pole had been up a little more than two months, the soldiers cut it down. Promptly the next day (August 11th), a meeting was held on the Common to erect another, but the soldiers attacked the people and wounded several of them, and the attempt was deferred several days, when another pole was successfully raised.

For four years, harassed by the policy of the English Crown and the behavior of its armed representatives in the city, the irritation of the people increased. On September 23, 1766, the second Liberty Pole was cut down by unknown persons, but a third pole was erected two days later. On March 18, 1767, the third pole was destroyed. The next day a fourth pole was erected, secured by iron braces and bands and watched by a citizen's guard. On March 21st, the soldiers tried to destroy this emblem of liberty but were repulsed by the citizens. On December 17, 1767, a mass meeting was held on the Common in opposition to the Mutiny Act.

So affairs continued until 1769–1770 when the Liberty Pole contests culminated in the Battle of Golden Hill, which has been called the first bloodshed of the Revolution.

In December, 1769, a hand bill was printed and circulated, addressed to the "betrayed inhabitants of the City and Colony of New York," sharply reproving the Assembly for voting supplies to the King's troops, accusing it of betraying the common cause of Liberty, and inviting the citizens to meet at the Liberty Pole in the Fields to express their sentiments. It was signed "A Son of Liberty." The authorities were scandalized by the hand bill and sought its author. While the search was going on, the soldiers, on January 13, 1770, again attacked the Liberty Pole, but were repulsed. On January 16th, however, the soldiers succeeded in felling the pole, sawing it up, and piling it in front of Montagnie's door, the headquarters of the Sons of Liberty, on Broadway. On January 17th, upward of 3,000 indignant citizens assembled on the Common and erected another Liberty Pole. This pole, strongly reinforced with iron, was surmounted by a topmast and vane, the latter bearing the word "Liberty" in large letters. On January 18th, three soldiers were caught posting on the Fly Market, at the foot of Maiden Lane, a scurrilous placard impugning the character of the Sons of Liberty, and signed "The Sixteenth Regiment of Foot." Several citizens, led by Isaac Sears, took the soldiers before the Mayor. A number of armed soldiers from the fort demanded their release. The two parties of citizens and soldiers moved tumultuously to Golden Hill, about at John and William streets. Here the soldiers turned and fired on the citizens, killing one, wounding three, and injuring many others. Many of the soldiers were badly beaten.

A sequence of the placard-posting was the arrest of Alexander MacDougall. Through the confession of the printer, the hand bill of December, 1769, was traced to MacDougall, one of the leading spirits of the Sons of Liberty, and he was cast into the New Gaol in the Fields, as the Common was now called.

MacDougall's case was so similar to that of John Wilkes, who had been imprisoned in England for a famous article on individual

liberty, printed in No. 45 of "The North Briton," that his friends adopted "45" as their cabalistic number. Holt's Journal, of February 15, 1770, records the following visit of the "Forty-five" to MacDougall in his new quarters: "Yesterday, the forty-fifth day of the year, forty-five gentlemen, friends of Captain MacDougall and the glorious cause of American Liberty, went in decent procession to the New Gaol and dined with him on forty-five pounds of beef steaks, cut from a bullock forty-five months old." So great was the pressure of MacDougall's callers, that he had to establish regular reception hours, and under date of the "New Gaol, February 10, 1770," he published a notice to his friends, stating that he would be "glad of the honor of their company from three o'clock in the afternoon until six." He was released on bail in April. During the Revolutionary War he became a Major-General in the Continental Army, and at one time had command at West Point.

On March 26, 1770, the soldiers made an attempt to remove the topmast and Liberty vane of the Liberty Pole and a contest ensued between them and the citizens, but without fatal results. On May 10th, a mass meeting was held in the Fields to oppose the importation of English goods, and in June, a quantity of English wares seized by the Sons of Liberty were brought here and burned.

On July 6, 1774, a great meeting was held in the Fields in oposition to the Act of Parliament known as the Boston Port Bill. At this meeting one of New York's most distinguished citizens, Alexander Hamilton, first appears as a public orator. Hamilton was a student at old King's College (now Columbia University), which stood two blocks west of the present City Hall park on a site indicated by a tablet at Murray street and West Broadway. Irving, in his Life of Washington, referring to Hamilton on this ocasion, says: "Hamilton was present, and, prompted by his excited feelings and the instigation of youthful companions, ventured to address the multitude. The vigor and maturity of his intellect, contrasted with his youthful appearance, won the admiration of his auditors; even his diminutive size gave additional effect to his eloquence."

On Sunday, April 23, 1775, a travel-stained horseman dashed down the old Post road, past the Common, and to the center of the city, spreading the news of the battle of Lexington. The crisis in the affairs of the Colonies had come, the loyal citizens at once took measures for enlisting soldiers, and a Citizens' Committee assumed the government of the city. On May 26th, the Asia, man-of-war, arrived and the Royal Irish Regiment remaining in the upper barracks on the Common evacuated their quarters and withdrew to the ship, on June 6, 1775. In doing so, they attempted to remove five cart-loads of spare arms. At Broad and Beaver streets, they were boldly halted by Marinus Willett and others, deprived of the five carts containing the arms, and were then permitted to embark without further molestation.

Historical Events — Revolutionary Period — 1776–1783.

With the evacuation of Boston by the British on March 17, 1776, and the transfer of the seat of war to New York, the Fields became the camp ground and the drilling place of the Americans.

The Americans at once set themselves actively at work fortifying the city and barricading the streets. The Fields were almost completely hemmed in with fortifications, every avenue of approach being closed up. At St. Paul's church there were two barricades at right angles to each other, one extending across Broadway and one across Vesey street. Other barriers extended across the heads of Barclay, Robinson (now Park place), and Murray streets. On the Chatham street side, a barricade was erected across the head of Beekman street; another, right-angular in form, was in the present Printing House square, one face commanding George (now Spruce) street, the other facing the Presbyterian Church yard (on the south side of the square) and Nassau streets; another confronted Frankfort street; another, forming an obtuse angle, occupied Chatham street in front of the present World building; and another long one extended from the site of the Brooklyn bridge entrance diagonally across Chatham street to the upper eastern end of the barracks on Chambers street.

A notable figure in the history of the Park at this period was Alexander Hamilton, who, in March, 1776, became captain of artillery in a newly raised provincial corps. It was while exercising his company here that he became the object of one of those interesting concurrences of events which oftentimes mark the turning point, not only in individual careers but also in the course of historic events. We can best describe this occurrence, which brought together Hamilton and Washington and which had a profound influence on the future of both men and the cause of Independence itself, by quoting Irving. Speaking of the middle of the year 1776, he says:

"About this time we have the first appearance in the military ranks of the Revolution of one destined to take an active and distinguished part in public affairs and to leave the impress of his genius on the institutions of the country. As General Greene one day, on his way to Washington's headquarters, was passing through a field — then on the outskirts of the city, now in the heart of its busiest quarter and known as the Park — he paused to notice a provincial company of artillery, and was struck with its able performances and with the tact and talent of its commander. He was a mere youth, apparently about 20 years of age; small in person and stature but remarkable for his alert and manly bearing. It was Alexander Hamilton. Greene was an able tactician and quick to appreciate any display of military science; a little conversation sufficed to convince him that the youth before him had a mind of no ordinary grasp and quickness. He invited him to his quarters and from that time cultivated his friendship. . . . Further acquaintance heightened the General's opinion of his extraordinary merits and he took an early occasion to introduce him to the Commander-in-Chief."

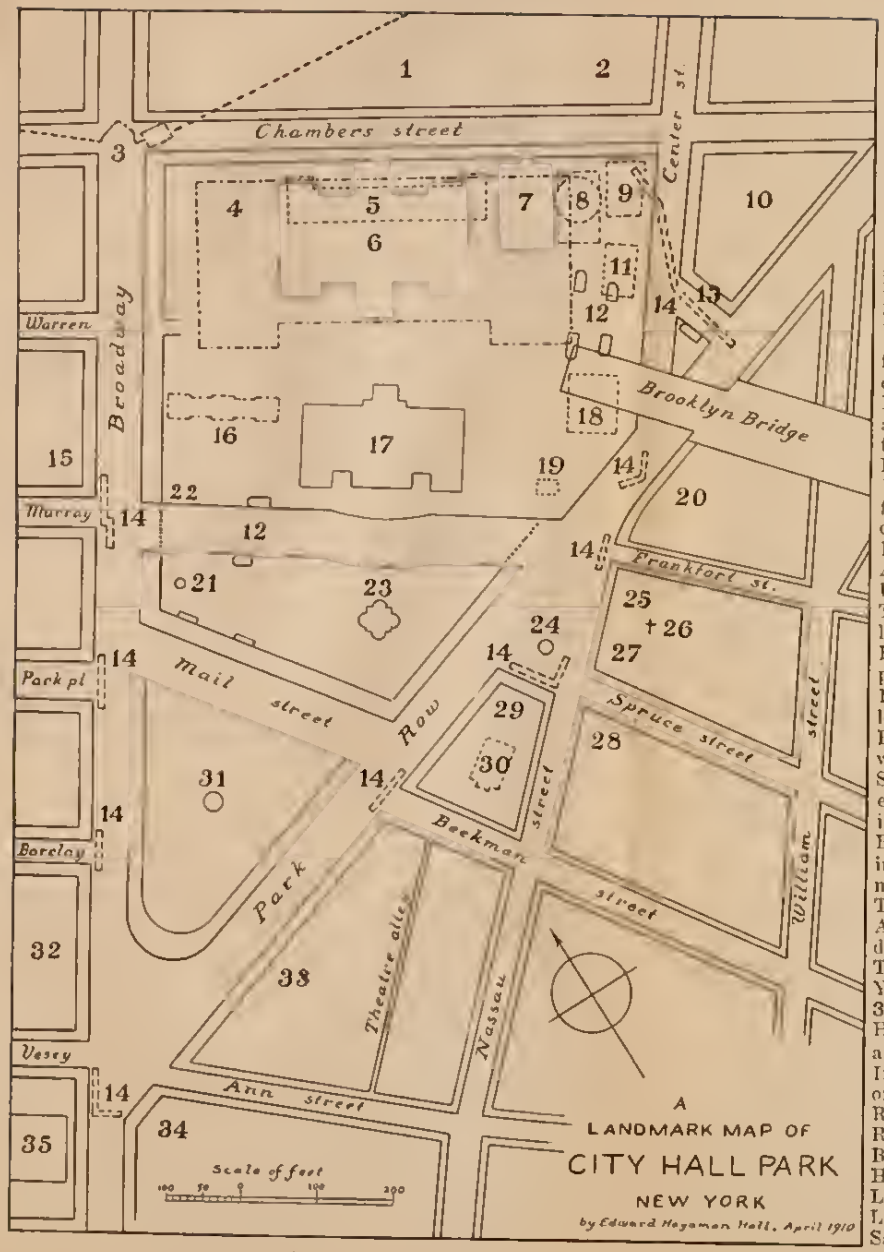
It may truly be said that City Hall Park was the birthplace of Hamilton's public career.

The Park was also the scene of another historic event which alone should have dedicated it forever to the cause of liberty in the hearts of the citizens of New York. That was the reading here of the Declaration of Independence on the receipt of that immortal document on the 9th of July, 1776. Washington had given orders

that the Declaration be read to the several brigades quartered in and about the city at 6 o'clock that evening. According to the relation of an eye-witness to the historian Henry B. Dawson, the brigade encamped on the Fields was drawn up in a hollow square on the southern part of the Park, now occupied by the Post-office, and the Declaration was read by one of the aids of Washington, the Commander-in-Chief himself being present.

In August occurred the battle of Long Island and in September the Americans evacuated New York, and for seven long years not a Continental soldier was seen in the Fields except as a prisoner of war. In the latter capacity, nearly 4,000 American troops fell into the British hands as the result of the Battle of Long Island (August 27) and the battle of Fort Washington (November 16). The Gaol and Bridewell in the Fields were filled to their utmost physical capacity and churches, sugar houses, the old City Hall, the Kings College, private dwellings and prison-ships were brought into requisition to accommodate the rest. The Gaol in the Fields was reserved for the more notorious "rebels," and the memory of the sufferings which the Continental soldiers endured under the inhuman Provost-Marshal William Cunningham, adds still further to the sacred character of this historic place. The Gaol was now called the Provost.

Cunningham's figure is one of the most repulsive in the history of the war. He was a corrupt, hard-hearted and cruel tyrant, who hesitated at nothing that would add to the miseries of his helpless victims or to his own wealth and comfort. His hatred for the Americans found vent in the application of torture with searing irons and secret scourges to those of his charges who, for any reason, fell under the ban of his displeasure. His prisoners were crowded so closely into their pens that their health was broken by partial asphyxiation; and many of them were starved to death for want of food which the Provost-Marshal had sold to enrich his own purse. The abused prisoners were refused permission to see their nearest relatives, and were allowed to suffer unattended when ill. They were given muddy water to drink although beautifully clear water was obtainable from neighboring springs; and a prisoner's



Explanation of Map.

The old Common was substantially identical with the triangle bounded by Broadway, Chambers street and Park Row. The northeast corner was gradually worn off until, with the opening of Centre street, the Park was bounded by Broadway, Chambers street, Centre street and Park Row. It thus remained until 1867, when the Post-office site was sold, since which time the Park has been bounded by Broadway, Chambers street, Centre street, Park Row and Mail street (the latter the shortest street in the city).

1. Site of ancient burying ground for negroes, paupers and criminals and for American patriots under British rule during the Revolution. 2. New Hall of Records. 3. Site of barrier gate and blockhouse in angle of second City Wall of palisades erected in 1746 (Marschalk's survey, 1755). 4. Large broken outline, 480 by 215 feet, plan of proposed new County Court-house. 5. Small broken outline, plan of second almshouse, 1797–1857; also site of Upper Barracks of larger extent 420 by 21 feet, 1757–1790. There were additional Barracks between sites 5 and 16 during the Revolution. 6. Solid outline, present County Court-house, begun 1861. 7. Present City Court-house, erected 1852. 8. Site of Rotunda, 1818–1870. 9. Site of dispensary and soup-house, 1817 and later; also of fire engine house, removed 1906. 10. New Municipal Building in course of erection. 11. Site of temporary fire engine house built 1859. 12. Subway kiosks. 13. Approximate site of old State Arsenal; later, Free School No. 1, circa 1809. 14. Fortifications built by Americans in 1776 (Hills' survey, 1782–5). 15. Postal Telegraph Building, 253 Broadway; site of Montagnie's Tavern, headquarters of Sons of Liberty, 1770 and earlier. 16. Plan of Bridewell, 1775–1838 (Mangin's survey, 1804); a Revolutionary prison. 17. City Hall, begun 1803; site of first Almshouse, 1736–1797. 18. Site of Gaol, the "Martyrs' Prison" of the Revolution, later Hall of Records, 1757–1903 (Mangin's survey). 19. Site of Powder Magazine (Marschalk's survey, 1755, and Montresor's survey, 1775). 20. New York World Building. 21. Nathan Hale Statue. 22. Approximate site of first building on the Common, early 18th century. 23. Fountain, built 1871. 24. Statue of Benjamin Franklin in Printing House Square. 25. New York Sun Building, built 1811, first permanent Tammany Hall. 26. Approximate site of grave of Jacob Leisler as located on Grim's recollection map, but may have been a little farther north. 27. New York Tribune Building; statue of Horace Greeley in vestibule. 28. American Tract Society Building; site of Martling's Tavern; rendezvous of Sons of Liberty and "Martling's Men"; Wigwam of Tammany Society, 1798. 29. Building formerly occupied by New York Times. 30. Site of Brick Presbyterian Church built 1768. 31. Site of Croton Water Fountain in what was once part of City Hall Park; triangle is now occupied by United States Post-office and Court-house. 32. Astor house, built 1834–38; site of Drovers' Inn and other early hostelries. 33. Nos. 21, 23, 25 Park Row, site of successive Park Theatres, 1798–1848, frontage of 78 feet on Park Row and 85 feet on Theatre Alley. Part of this site (No. 21 Park Row) is now occupied by the Park Row Building. 34. Saint Paul Building; southern half of this property is site of Spring Garden House. On this property stood Bicker's Tavern, bought by Sons of Liberty after they left Montagnie's and named Hampden Hall. Later site of Scudder's Museum and Barnum's Museum. 35. Saint Paul's Chapel, begun in 1764.

weekly ration was restricted to two pounds of hard tack and two pounds of raw salt pork, with no means of cooking it.

An admission to this Bastile, with its known and unknown horrors, was enough to appall the stoutest heart. Henry Onderdonk, Jr., in a contribution to Valentine's Manual for 1849, describes the jail in these words:

"On the right hand of the main door was Cunningham's quarters, opposite to which was the guard room. Within the first barricade was Sergeant O'Keefe's apartment. At the entrance door two sentinels were posted day and night; two more at the first and second barricades, which were grated, barred and chained; also at the rear door, and on the platform at the grated door at the foot of the second flight of steps leading to the rooms and cells in the second and third stories.

"When a prisoner, escorted by soldiers, was led into the hall, the whole guard was paraded, and he was delivered over with all formality to Captain Cunningham or his Deputy, and questioned as to his name, rank, size, age, etc., all of which were entered in a record book.* At the bristling of arms, unbolting of bars and locks, clanking of enormous iron chains, and a vestibule as dark as Erebus, the unfortunate captive might well sink under this infernal sight and parade of tyrannical power, as he crossed the threshold of that door which probably closed on him for life.

"The northeast chamber, turning to the left on the second floor, was appropriated to officers and characters of superior rank, and was called Congress hall. So closely were they packed that when they lay down at night to rest (when their bones ached) on the hard oak planks and they wished to turn, it was altogether, by word of command, 'Right-Left,' the men being so wedged as to form almost a solid mass of human bodies. In the day time the packs and blankets of the prisoners were suspended around the walls, every precaution being taken to keep the rooms ventilated and the walls and floors clean to prevent jail fever.†

"In this gloomy abode were incarcerated at different periods many American officers and citizens of distinction, awaiting, with

* These records appear to have been discreetly destroyed by Cunningham or the British authorities, for there is no evidence of their having been preserved.

† Whether these precautions were maintained, and if so, whether they were more successful than in the other prisons does not appear. In 1777 the fever raged in the Middle Dutch Church prison, whence the dead carts took from eight to twelve corpses every morning and dumped them into ditches in the outskirts of the city.

sickening hope, the protracted period of their liberation. Could these dumb walls speak, what scenes of anguish might they not disclose. The Captain and his Deputy were enabled to fare sumptuously by dint of curtailing the prisoners' rations, exchanging good for bad provisions, and other embezzlements. In the drunken orgies that usually terminated his dinners, Cunningham would order the rebel prisoners to turn out and parade for the amusement of his guests, pointing them out with such characterizations as, 'This is the d——d rebel, Ethan Allen,' 'This is a rebel judge,' etc."

In the allusion to Allen we recognize the presence of the celebrated patriot who had captured Ticonderoga, "in the name of the Great Jehovah and the Continental Congress." After taking the Lake Champlain stronghold he had joined the expedition against Montreal, and been captured on September 25, 1775. He was taken to England, thence to Halifax, and in the autumn of 1776 was brought to New York, where he was at first allowed the liberty of the city on his parole. Here he was subjected to every persuasion by General Howe to induce him to desert the American cause and serve the King. He was offered a commission in the King's army and promised large tracts of land in Vermont at the close of the war; but his loyalty to the Colonies was so true that he indignantly rejected all attempts to purchase his integrity, and his confidence in the outcome of the struggle for independence so strong that he openly predicted His Majesty's inability to fulfill his promises in regard to the land.

It may readily be imagined that the failure of these persuasions to move the steadfast patriot did not tend to ingratiate him in the favor of his captors, and in January, 1777, they clapped him into jail on the charge (which he stoutly denied) of having broken his parole.

Allen was just the sort of "rebel" whom Cunningham liked to have in his clutches, and he was promptly assigned to a solitary dungeon, without bread or water for three days. Then he was given a bit of fat pork and a hard biscuit with which to break his fast.

Allen grew restive under his confinement, and evidently considered himself neglected by his friends, as appears in the letter from Joseph Webb to Governor Jonathan Trumbull of Connecticut ("Brother Jonathan"), arranging for an exchange of prisoners. "Ethan Allen begs me to represent his situation to you," wrote Webb, "that he has been a most attached friend to America; and he says he's forgot; he's spending his life, his very prime, and is confined in the Provost, and they say for breaking his parole," etc. In May, 1778, he was exchanged for Colonel Campbell of the British army.

Major Otho Holland Williams was another unfortunate confined in the Provost.

It is impossible to relate all the dark deeds done by the inhuman Cunningham during the seven years in which he had charge of the Gaol, or recount a tithe of the suffering therein endured by those who had championed the cause of American independence, for no records were preserved, and the greater part of the dramatic and pathetic history of that period of the building's existence is known only to "Him from whom no secrets are hid." But enough is known to make the site of the building one ever to be held in remembrance.

The war at length came to an end, and on November 25, 1783, the British evacuated New York. Most of the city prisons had been emptied before the close of hostilities, but the Provost was continued in use until Evacuation Day.

"I was in New York November 25," wrote General Johnson, "and at the Provost about 10 o'clock A. M., when an American guard relieved the British guard, which joined a detachment of British troops then on parade in Broadway, and marched down to the Battery, where they embarked for England."

It is chronicled that as the Deputy O'Keefe was about to depart the prisoners called out asking what was to become of them.

"You may go to the devil," was the reply.

"Thank you," rejoined one of the prisoners, "we have had enough of your company in this world."

It would, in a measure, appease one's sense of justice if the reported fate of the inhuman Provost-Marshal could be confirmed. It is stated with a degree of precision that, having been convicted of forgery — an offense which would appear to have been more serious in English estimation than the torture and murder of helpless prisoners — he was hanged in London, August 10, 1791. But there is no official confirmation of this, or of the "dying confession" which he is said to have made in the following words:

"I was appointed Provost-Marshall to the Royal Army, which placed me in a situation to wreak vengeance on the Americans. I shudder to think of the murders I have been accessory to, both with and without orders from the Government, especially while we were in New York, during which time there were more than 2,000 prisoners starved in the churches by stopping their rations, which I sold. There were also 275 American prisoners and obnoxious persons executed, which were thus conducted: A guard was dispatched from the Provost about half-past 12 o'clock at night to the Barrack street, and the neighborhood of the Upper Barracks, to order the people to shut their window shutters and put out their lights, forbidding them at the same time to look out of their windows and doors on pain of death; after which the unfortunate prisoners were conducted, gagged, just behind the Upper Barracks, and hung without ceremony, and there buried by the black pioneer of the Provost."

Whether or no the foregoing ever proceeded from Cunningham's lips, there is only too much reason to believe that it represents the truth.

Historical Events — *War of* 1812–1815.

Hardly had the new City Hall been completed when the declaration of the Second War with Great Britain again made the Park the scene of stirring patriotic events. The news of the declaration of war reached New York on June 20, 1812, and at noon on the 24th a great public meeting was held in the Park to take the matter under consideration. The venerable Colonel Henry Rutgers, an old Revolutionary officer, presided, and Colonel Marinus

Willett, one of the Sons of Liberty and also a Revolutionary hero, was Secretary. The act of Congress and the President's proclamation having been read, a preamble and resolutions supporting the government were read. The preamble began:

"In one of those awful and interesting moments with which it has pleased Heaven that states and kingdoms should be visited, we consider ourselves convoked to express our calm, decided and animated opinion on the conduct of our Government."

The preamble continued in this impressive manner, and was followed by resolutions approving of the efforts of the government to preserve peace, but declaring the belief that the crisis had arrived when peace could no longer be retained with honor — and justifying the government's appeal to arms. The appeal now being made to the sword, the meeting called upon all fellow citizens to yield the government their undivided support. "Placing our reliance in the Most High," said the last resolution, "and soliciting His benediction on our just cause, we pledge to our government, in support of our beloved country, 'our lives, our fortunes and our sacred honor.'"

Two years later (August 11, 1814), when the city was threatened with attack, the people again assembled in the Park to renew their pledges. Colonel Rutgers again presided. Oliver Wolcott was Secretary. They sat on the balcony of the City Hall. Dr. Samuel L. Mitchill, Dr. W. J. McNeven, and Messrs. Wolcott, Riker, Anthony, Bleecker and Simpson were appointed to draft resolutions, and those which they presented had the same ring as those of 1812. Colonel Willett was also there and addressed the assemblage with patriotic fervor. "Three score and fourteen years," he said, "have brought with them some bodily infirmities. Had it been otherwise, and had my strength of body remained as unimpaired as my love for my country and the spirit that still animates me, you would not, my friends, have seen me here to-day. I should have been amongst that glorious band that on the waters of Erie and Ontario have achieved so much fame and lasting glory

for their country. Fifty years ago I was at a meeting of citizens on this Green. Then the acclamation was 'Join or die!' The unanimity of that day procured the repeal of some obnoxious laws." Then he ran over the events leading up to the Revolution, and events of the war itself; and continued: "In the War of the Revolution it was a favorite toast: 'May every citizen be a soldier and every soldier a citizen.' Our citizens must now again become soldiers, and those soldiers good citizens. * * * As to this mistaken idea that American militia are unequal to the contest with British regulars, I am a living witness to the contrary. I have met them when their numbers were double mine and I have routed and pursued them."

One cannot read the whole of the speech from which the foregoing words have been taken without thrilling and feeling that the lofty sentiments expressed at that crisis still further dedicated the Park with very sacred traditions to the generations which have come after.

On October 23, 1814, Governor D. D. Tompkins, Commander-in-Chief of the New York Militia and, by appointment by the President, in command of the Third Military District of the United States, made his headquarters in the City Hall, and during the remainder of that critical period the City Hall and Park were the base from which the military operations in this neighborhood were conducted.

Historical Events Between the Wars — 1815–1861.

During the period between the War of 1812–15 and the Civil War, City Hall Park was the focus of almost every festive demonstration of a public character that occurred in the city. Among these, the Independence Day celebrations were notable events. Here was the culmination of the Fourth of July parade, which was composed of the militia and civic societies and which generally formed at the Battery; and here the procession was reviewed by the Mayor and Aldermen and dismissed with a feu de joie.

For many years it was customary on the eve of the Fourth of

July to erect around the Park booths where roast pig, egg nog, cider and spruce beer were among the refreshments sold. On June 29, 1841, a vote was taken in the Board of Aldermen on the proposition to refuse permits for the erection of these booths, but the custom had such a firm hold that the motion was lost and the practice was continued for a few years longer before it was abolished.

Besides these Fourth of July celebrations, many other interesting events occurred at this place. Here Lafayette was given a brilliant reception on August 16, 1824; here was the focus of the land celebration of the opening of the Erie canal on November 24, 1825; here was the center of the Croton water celebration October 14, 1842; here the laying of Atlantic cable was celebrated in August, 1858, by an illumination of the City Hall, from which the building caught fire; from here the funeral of Gen. William J. Worth took place November 25, 1857; and here in 1860 the Prince of Wales, Edward VII of England, was received with great ceremony. These are only a few of the ceremonies which, during the period mentioned, marked City Hall Park as the civic center of the city.

An occurrence of less agreeable aspect was the riot precipitated by Mayor Fernando Wood in 1857. In that year the charter was amended and the Metropolitan police system established, having jurisdiction over the counties of New York, Kings, Westchester and Richmond. Mayor Wood refused to accede to the new system, and, gathering the old police force around him, defied the Metropolitan police and threatened with violence those who attempted to get the offices in their control. When Daniel D. Conover was appointed street commissioner by Governor King, Mayor Wood drove him from the City Hall. Conover secured a warrant for Wood's arrest and proceeded to execute it with the aid of fifty Metropolitan police. Arriving at the City Hall, he found it closed against him and filled with armed policemen of the old force. A conflict ensued. The Mayor had the sympathy of the worst class of the population, and a mob gathered for his sup-

port. A bloody riot ensued. Just at this juncture the Seventh Regiment came down Broadway, en route to embark on a steamboat for a trip to Boston. It stopped long enough to support the Metropolitan police in enforcing order and serving the warrant, and then continued on its way. But the spirit of defiance of the law thus encouraged by Mayor Wood was aroused and broke out in other parts of the city in bloody riots which were not quelled until six persons had been killed and a hundred wounded.

Historical Events — Civil War Period, 1861–1865.

With the outbreak of the Civil War, the Park again became the scene of martial activity. In the very first month of the war, in April, 1861, the Common Council passed a resolution authorizing the State authorities to erect a building in the Park for barracks and to provide an eating place for volunteers. In February, 1862, when the Common Council directed the removal of all tents and booths from the public parks, the barracks in City Hall Park were specifically excepted. From time to time during the war permits were granted for the erection of recruiting tents.

Our Cradle of Liberty.

In bringing to a conclusion this very imperfect sketch, the words of Henry B. Dawson, the historian, concerning this storied Park, may be quoted with as much force to-day as when he uttered them fifty-five years ago:

"It must not be forgotten, that the Park is still the refuge of the people. . . . Here they have met La Fayette and other friends of freedom and their country, making the welkin ring with their joyous shouts; and here they have mingled their tears over the memory of Jackson, Clay, and other departed worthies. On all occasions whether of joy or sorrow, of prosperity or calamity, of welcome or of separation, the Park is now as it ever has been the resort of the people. Nor does it possess much less interest to others than to us. The past — the common property of all — shows the Park to have been *the Faneuil of New York,* the cradle in which the much-lauded 'cradle of liberty' in Boston was itself rocked in its infantile years."

APPENDIX F.

PROCEEDINGS AT THE DEDICATION OF THE PALISADES INTERSTATE PARK AT ALPINE, N. J., ON MONDAY, SEPTEMBER 27, 1909.

DEDICATION OF THE PALISADES INTERSTATE PARK.

The Palisades Interstate Park was formally dedicated under the auspices of the Palisades Interstate Park Commission of New York and New Jersey and the Hudson-Fulton Celebration Commission of the State of New York by ceremonies held at Alpine, N. J., on Monday, September 27, 1909, beginning at 11 o'clock A. M. The American Scenic and Historic Preservation Society was represented in the proceedings by its President, Dr. George F. Kunz.

The Palisades Interstate Park Commission consists of ten members, five of whom are residents of New York and five of New Jersey, and all ten are dually appointed by the Governor of New York and the Governor of New Jersey. The Commission is organized as follows:

New York	*New Jersey*
George W. Perkins, Pres.	Edwin A. Stevens, President.
Franklin W. Hopkins, Vice-Pres.	D. McNeely Stauffer, Vice-Pres.
J. DuPratt White, Secretary.	J. DuPratt White, Secretary.
D. McNeely Stauffer, Treas.	Abram De Ronde, Treasurer.
Edwin A. Stevens	George W. Perkins.
Nathan F. Barrett	Franklin W. Hopkins
William A. Linn	William H. Porter
Abram De Ronde	William A. Linn
William H. Porter	William B. Dana
William B. Dana	Nathan F. Barrett

The Hon. Edward A. Stevens presided at the dedicatory exercises.

Prayer by Rev. Howard C. Robbins.

The opening prayer was offered by the Rev. Howard C. Robbins of Englewood, N. J., in the following words:

Almighty God, unto whom all hearts are open, all desires known, and from whom no secrets are hid, cleanse the thoughts of our hearts by the inspiration of Thy Holy Spirit, that we may perfectly love Thee, and worthily magnify Thy Holy Name; through Jesus Christ, our Lord.

We bless Thee, Lord of heaven and earth, for this occasion of great and public joy. Grant that the solemnity of it may be upon our spirits. Grant that by the largeness of it our hearts may be enlarged. Inspire in us a heat of fervent recollection, that our self-interest may be abashed and put to silence, and for a moment we may find our happiness in what concerns the general good of man.

Fair is our lot; yea, goodly is our heritage. We bless Thee for the records of creation, graven in these ancient Palisades. Help us to read aright the written records. Teach us thereby to recognize a wisdom anterior to that of nature, and a force constraining her. Lord, we thank Thee that Thou didst not leave the earth a welter of chaotic forces.

We thank Thee that Thou didst prepare an habitable world for man. Before the mountains were brought forth, or even the earth and the world were made, Thou art God from everlasting, and world without end. We praise Thee, O God, we acknowledge Thee to be the Lord. All the earth doth worship Thee, the Father everlasting. We rejoice that Thou hast given us dominion over Nature. Of Thee only cometh counsel and invention, and every human strength. Thou hast taught us to seek out food and raiment and shelter, and to protect ourselves against Thy lower creatures. Of Thy providence it cometh that our life hath been preserved upon the earth. We thank Thee not alone for the devices which have sheltered human life, but for those which have enlarged it. We bless Thee for commerce and industry, for science, literature and government, and for all the arts of peace. In particular, we adore Thy mercy for the invention of which this river was the witness. We thank Thee that thou didst put into the heart of Thy servant Robert Fulton the great device whereby the ends of the earth are brought together, and the brotherhood of nations is made manifest, and the coming of Thy kingdom is advanced.

We rejoice in many notable endeavors to which this river witnesseth. We bless Thee for the valiant histories inwrought into its shores. We remember with reverence the spirit of adventure which brought hither its explorers, and enabled them to bestow upon Christendom a continent of beginnings, a land unhindered of tyranny and untroubled by regret. We remember with reverence the war of freedom which was waged about its borders: the war whose happy issue welded us into a Nation, be-

queathing to us great and federal tasks. Give unto us, O God, strength to undertake, and wisdom to fulfill the tasks of democratic government. Help us to close the widening chasm between the strong and weak, the rich and poor. Enable us to cast therein all pride and prejudice, luxury and covetousness, the insolence of riches with the rancour of poverty, that we may fill it full and make a highway for the King to pass over, and for all the people to walk in together. And so may we establish the Republic, and build in America the Holy City, foretold by all the prophets since the world began.

Father of Heaven, look with favor upon Thy people, and accept our anniversary gift. Thou didst put into the hearts of faithful men and women the desire to preserve from human ravage the towering cliff and gracious shore and flower-sprinkled wilderness. By gifts of patience and of public spirit, Thou didst prosper their endeavor, and bring the same to good effect. Receive from them, O God, unspoiled and consecrated, the loveliness which they have reverenced. Protect it throughout coming generations, and sanctify it to the people's use. And let the beauty of the Lord our God be upon us, and establish Thou the work of our hands upon us; yea, the work of our hands, establish Thou it. Amen.

Address by Hon. George W. Perkins.

Chairman Stevens: We will now hear the report of the Commissioners of the Palisades Interstate Park of the States of New York and New Jersey, from Mr. George W. Perkins, who is President of the New York Commission. I have the pleasure of introducing Mr. Perkins:

Mr. George W. Perkins: As President of the New York Commission it becomes my duty and pleasure on this occasion to report to the Governors of the States of New York and New Jersey, on behalf of the Palisades Interstate Park Commission, that the Commission has completed the task intrusted to it, viz., that of saving the Palisades from Fort Lee, N. J., on the south, to Piermont, N. Y., on the North, and, further, of acquiring the face of the Palisades and the land between them and the Hudson, and the outstanding riparian rights adjacent thereto, along this 14-mile strip of territory for the purpose of an Interstate Park.

The first tangible plan toward protecting the Palisades was a proposal in 1895 to induce the national government to secure

them for military purposes. A commission was appointed for this purpose but the scheme fell through. The outlook for preservation after this failure seemed most discouraging. At this juncture the women of New Jersey took up the work, and with great zeal and intelligence the New Jersey State Federation of Women's Clubs began an active campaign, resulting in the passage of a bill in 1899 by the New Jersey State Legislatude, empowering the Governor to appoint a committee of five, to investigate and report. Governor Voorhees signed this bill and named, as members of the Commission, Elizabeth B. Vermilye, Cecilia Gaines Holland, Franklin W. Hopkins, William A. Linn and S. Wood McClave.

The New York Legislature passed a similar bill, and Governor Roosevelt, at the suggestion of Andrew H. Green,* appointed as the New York Committee, Frederick W. Devoe, Frederick S. Lamb, George F. Kunz, Abraham G. Mills, and Edward Payson Cone.†

Among the ardent supporters and most effective workers connected with the movement at that time were Dr. George F. Kunz, now President of the American Scenic and Historic Preservation Society, and the late Wm. E. Dodge.

Conferences covering nearly a year followed, with the result that the committee reported to the respective Legislatures the passage of acts constituting a permanent Interstate Park Commission, to serve without compensation and with power to acquire and hold whatever territory was necessary along the Palisades for an Interstate Park and thereby preserve the scenery of the Palisades. Legislation to this end was passed by the New York Legislature and approved by Governor Roosevelt March 22, 1900. In the New Jersey Legislature the bill met with considerable hostility, but the friends of the proposed measure kept up an unremitting fight, the work of the women of New Jersey being particularly effective, and the bill was finally passed and signed.

Governor Voorhees appointed as New Jersey's Commissioners Abram S. Hewitt, Edwin A. Stevens, Franklin W. Hopkins, William A. Linn and Abram De Ronde.

Governor Roosevelt's appointees were Geo. W. Perkins, J. DuPratt White, Ralph Trautmann, D. McNeely Stauffer, and Nathan F. Barrett.

With the exception of the vacancies caused by the lamented death of Messrs. Abram S. Hewitt and Ralph Trautmann, whose

* Then President of the American Scenic and Historic Preservation Society.
† All then trustees of this Society.

places were filled by William B. Dana and William H. Porter, the personnel of the Commissions has remained unchanged through the nine intervening years.

When the Commission began its labors in the summer of 1900, it had on hand appropriations of $5,000 from the State of New Jersey and $10,000 from the State of New York, for expenses.

The Commission found that legally organized companies were engaged in blasting the cliffs on land that the said companies had bought, and a right, under the law, to quarry.

A survey of the Palisades was at once undertaken and New Jersey's appropriation was devoted to this purpose. The Commissioners were surprised to find that in place of the Palisades presenting a perpendicular face, as was the common belief, there were about 500 acres of land suitable for Park purposes at the foot of the cliffs, in a strip from Fort Lee to Piermont, and that there were about a dozen places at the foot of the cliffs which lent themselves very easily as landing places from which the 500 acres could be reached.

In a general way the Commission came to the conclusion that if it could in some way stop the blasting and acquire the quarries it might be possible to acquire all the rest of the face of the cliffs and the riparian rights between Fort Lee and Piermont for something like $500,000. The difficult problem, of course, was how to stop the blasting and acquire title to the quarries, which were valuable going concerns. After prolonged negotiations with the quarrymen, the Commission found that it could acquire title to the active quarries for $135,000.

The Commission had not spent for expenses any of the $10,000 which the State of New York had voted it. Its office had been "under its hat," so to speak, and it had incurred no incidental expenses. At this point it decided on the following plan:

First: To take the $10,000 of expense money and pay it on a contract to purchase the quarry properties for $135,000 — all blasting to stop until the following spring.

Second: To attempt to raise the remaining $125,000 by private subscription, with an understanding with the subscribers that they were not to contribute the money unless the Legislatures of New York and New Jersey, during the winter session, contributed respectively $400,000 and $50,000 for the purpose of acquiring such land along the face of the cliffs where blasting was not going on but might be started at any time.

The $10,000 was paid to the quarrymen, and all blasting on the Palisades stopped on Christmas eve, 1900. Mr. J. Pierpont Morgan offered to contribute the $125,000 needed to finish the purchase of the quarry properties under the plan contemplated. The Legislatures of New York and New Jersey were approached with this plan during the winter, and New York appropriated the $400,000 asked of it, and New Jersey appropriated $50,000.

Since then the work of acquiring the property has steadily progressed until now the Commission is able to report the acquisition of the entire face of the cliffs, from Fort Lee to Piermont, with the exception of two small titles which are in the course of completion. This has been accomplished without asking either State for any further appropriation for the purchase of land or riparian rights than the sums originally asked for and appropriated nine years ago.

In the intervening nine years, New York has appropriated $20,000 for expenses, and New Jersey has appropriated $17,500. This money has been used for surveying and engineering expenses, for improving and building a foot-path at the foot of the cliffs from Fort Lee to Alpine — a distance of about seven miles; for protecting the properties and policing the grounds; for searching and insuring titles, for insurance policies, for legal services, printing, clerical and stenographic hire. The personal expenses of the Commissioners during the nine-year period have amounted to $457.93.

The Commissioners have acquired about 175 parcels of land in all, including twenty-one homesteads or residences which are still occupied for a nominal rental. Good landing places exist at Fort Lee dock, Carpenter's quarry dock, Englewood dock, Van Wagoner's dock, Laffan & Rand's dock, Brown & Fleming's quarry dock, Huyler's Landing, Alpine, Pearsall's dock, Jordan's dock, Riverview Grove, Forest View dock, and Twombly's dock, and these several landings are scattered along through the 500 acres of land embraced in the Park district. In fact when the Commission took up its work nine years ago the Palisades were practically unknown and rarely, if ever, visited by any one.

As the blasting ceased and the cliffs were made somewhat accessible the people of New York and New Jersey began to enjoy this wonderful region. During the summer of 1905 the Commission issued twenty-five permits to people to camp on the Palisades. In 1906, 221 permits were issued. In 1907, 395 per-

mits were issued. In 1908, 700 permits were issued, and during the season just closed 1,000 permits were issued. Under those permits during the past summer, approximately 3,000 campers have enjoyed the shores of the Palisades during their holidays and on Sundays. This is in addition to many hundreds of picnickers who have visited the district for a few hours at a time.

In commemoration of the work for Palisades preservation accomplished by the Federation of Women's Clubs of New Jersey, the Commission has set aside a reservation on a commanding bluff, on which a suitable monument is to be erected from funds contributed by their friends; $3,000 raised by the women of New York and New Jersey has already been placed in this fund in honor of the public-spirited men and women of both States, who labored in the cause of Palisades preservation at the beginning of the movement.

The Commission acknowledges with grateful thanks gifts of land and money as follows:

Mrs. Lydia G. Lawrence, of Palisades, New York, land and right of way to the value of about $3,500.

Cleveland H. Dodge, of New York City, land and riparian rights to the value of about $16,000.

A member of the Commission, $12,000.

Two contributions to the Commission stand out as conspicuously valuable in the work that has been accomplished. That of Mr. Morgan at a critical moment in the beginning of the Commission's efforts, and a donation made last week by Mr. and Mrs. Hamilton McK. Twombly of sixty acres of land and 3,000 feet of riparian rights, which, including docks and improvements, is valued at $125,000. It is this latter gift that makes it possible for the Commission to announce at this time the completion of the task of saving the Palisades and acquiring the entire frontage of same, with the outstanding riparian rights, for Park purposes.

The parcel of land presented by Mr. and Mrs. Twombly has been owned by them for a number of years and during the past thirteen years they have maintained a dock and comfortable recreation grounds, and excursions have been run from the city for people who could not afford the outing themselves. During the past thirteen years 365,000 people from the city have enjoyed the benefits of a ride up the Hudson river, a few hours at this charming landing, and a ride back to New York. In

accepting this handsome gift the Commission has agreed to maintain this landing and permit all worthy institutions and all accredited individuals to use the property for the same worthy purposes for which Mr. and Mrs. Twombly used it in the past.

Up to date the Commission has but one sole object — to preserve and acquire the face of the Palisades. This has now been accomplished and the Commission's forecasts of nine years ago to the people who have helped it and to the States of New York and New Jersey, have been realized.

In the development of the work the Commission has come to appreciate the vast benefits that can accrue to the millions of people living in such close proximity to this absolutely unique piece of territory, and now that the task of saving and acquiring the Palisades has been accomplished the Commissioners intend to devote their efforts, with the permission of their respective States and the public, to a fuller development of the Park. There are now driveways down the cliffs at Englewood and Alpine. There should be a driveway the entire length of the base of the cliffs, from Fort Lee to Piermont. This would make the Park accessible from all points for all classes, and would make the most natural and perfect outlet from the city of New York to the good roads that are being laid out in the State of New York.

Last winter Senator Edmund W. Wakelee, always a consistent friend and worker in the cause of Palisades preservation, introduced a bill in New Jersey, favoring such a driveway, and the bill was passed. A similar bill was introduced in New York by Senator Howard R. Bayne, but did not pass. Such a driveway would not be as expensive as might be supposed, as it could be built in part with the material at hand along the base of the cliffs.

The surveys and sketches which the Commission has made in this connection show that a driveway of this kind could be built that, for picturesqueness, could scarcely be equalled anywhere in the world.

Here, within actual sight of our great throbbing city, is a little world of almost virgin nature, which has been rescued for the people and now stands as a permanent monument to the discovery of the Hudson river. I leave for others to tell of what nature has done for this unique strip of land. Man can do no more than preserve its natural grandeur and make the Park accessible to one and all, and to this end the Commission respectfully asks the support of the public and the Governors of the respective States, who are our honored guests at the dedication of this Park to-day.

Address by Hon. Charles E. Hughes.

The Chairman: I now have the very great pleasure of presenting one who needs no introduction to this audience, the sterling Governor of the State of New York, Hon. Charles E. Hughes.

Hon. Charles E. Hughes: We are inaugurating a celebration of human effort, of daring enterprise and inventive skill, of the progress of civilization in this early settled and most populous part of the new world. The discovery is notable because this river has been the scene of the rugged endeavors of the pioneer and colonist, of military exploit and heroic deeds, of the fruitful labors of industry, because it is the highway of a commerce which created a commonwealth and largely contributed to the development of the nation. About this river cluster the memories of our heroes of war and peace, and this beautiful valley is forever invested with the charm of the story of the vicissitudes of early settlements, of the struggle by which liberty was won, and of the marvelously expanding life of a free people.

It is fitting that at the outset we should turn from its historical association to the river itself. This celebration should not only prove a stimulus to endeavor by its commemoration of distinguished achievements, but it should also quicken our appreciation of the natural conditions which made these achievements possible and direct our attention to the conservation of this priceless gift of nature.

We ascend beyond the tidal sweep to the silent forest where the river takes its source. There at the headwaters of the Hudson and its principal tributaries, we have the necessity of forest preservation. If we would preserve the source of industrial power, if we would secure and maintain proper regulation of the flow of our streams and make them agencies of progress rather than devastating forces, we must conserve the forests of the country. It is only within a few years that we have appreciated the importance of this policy. For a long period, content with the lavishness of nature, we were unmindful of reckless waste and speedy spoliation. The people have not awakened too soon.

In the State of New York during the past few years, large areas of forest tract have been acquired by the State, and under the amendment to the Constitution adopted fifteen years ago, all lands so acquired are to be kept inviolate. It is to be hoped that these purchases will largely be extended and our forest tracts put beyond danger of devastation. The State, however, should have

sufficient liberty of action to enable it to prosecute the methods of scientific forestry so that it may intelligently care for its property and secure the returns which are consistent with due conservation. Denuded forest lands should be reforested.

Provision should also be made for the improvement and development of this stream as a source of industrial power. It is not only as a commercial highway that its importance should be emphasized. We should be mindful of the increase in water-power which may easily be realized to the great advantage of industry. The State of New York by carrying out comprehensive plans of water-power development can largely augment this important source of our prosperity, and by reserving adequate State control, make it more productive of benefit to all our people.

The river should be kept, so far as possible, free from pollution. We must maintain this noble stream as a wholesome river and not permit it to become a mere sewer. This is a problem of great difficulty because of local exigencies and of the demands of established industries upon which the prosperity of many of our communities depends. There are diversities of conditions which should have intelligent appreciation, but we must not be indifferent to the necessity of protecting the health of the people and to the importance of keeping our streams pure. This celebration should give an impetus to the movement to this end which too long has languished because of public inattention.

But it is not simply with commerce or with industrial power or with public health that we are concerned. Health, the development of industry, the prosperity that is due to the variety and facility of commercial exchanges are the conditions of wholesome living. But we need still further resources for the enrichment of our life. Of what avail would be the material benefits of gainful occupation; what would be the promise of prosperous communities with wealth of products and freedom of exchange, were it not for the opportunities to cultivate the love of the beautiful? This river has been a gateway for the conquest of a continent.

The inward rush of the sea and the linking of its waters to those of the Great Lakes have invited to this favored spot the commerce of the world. But the richest blessing of the Hudson river lies in its beauty with its most gracious ministry to the spirit of man. The wealth of the world concentered at our metropolis would not pay the coming generations for the destruction of the rare charm which is the free gift of nature and which no wealth

could create. The greater our prosperity, the more diffused our opportunities for fruitful and well-paid labor, the more important will be the preservation of beautiful scenery, and of these places where life is lifted out of drudgery and nature in the happy days of relaxation gives in her bounty to the appreciative soul the finest compensations for days of toil.

The preservation of the scenery of the Hudson is the highest duty with respect to this river imposed upon those who are the trustees of its manifold benefits. It is fortunate that means have already been taken to protect this escarpment which is one of its finest features. The two States have joined in measures for this purpose. I hope this is only the beginning of efforts which may jointly be made by these two Commonwealths to safeguard the Highlands and waters, in which they are both deeply interested. The entire watershed which lies to the north should be conserved, and a policy should be instituted for such joint control as would secure adequate protection.

It is gratifying to note that during the present year legislation has been enacted in New York creating a forest reservation in the Highlands of the Hudson. This reserve contains about 35,000 acres and within its boundaries the State is authorized to acquire tracts of land and to maintain regulations for suitable conservation.

Within a short distance of the great metropolis, within easy reach of its teeming population, lies this extensive area of natural beauty, making with its fascinating story a special appeal to the patriotic American heart. Easily accessible, it should be a place of renovation and inspiration for the toiling multitudes. Here should be the people's countryside for their common recreation. The Highlands of the Hudson and these Palisades, the glory not simply of our States, but of the entire country, must be put beyond the reach of the devastating hand and conserved for the general good, and on future centennial anniversaries the measures taken to that end, and for the preservation of the forest sources of this stream and to secure its undiminished and unpolluted flow, may well be regarded as our most important contribution to the welfare of the succeeding generations.

Address by George Frederick Kunz, Ph. D., Sc. D.

The Chairman: I greatly regret that Gen. Stewart L. Woodford, the president of the Hudson-Fulton Celebration Commis-

sion, is unable to be with us to speak on the subject of the Palisades Interstate Park as a permanent memorial of the discovery of the Hudson river. We are fortunate, however, in the presence of Dr. George F. Kunz, a trustee of the Commission and who has consented to speak on behalf of the Commission, and who, as president of the American Scenic and Historic Preservation Society, is thoroughly familiar with the movement for the preservation of the Palisades. I take pleasure in presenting Dr. Kunz.

Dr. Kunz: Mr. President of the Commission, Ladies and Gentlemen: With a task so well completed as is this Interstate Park, there is little more for the American Scenic and Historic Preservation Society to say, the object of this organization being to do pioneer work in calling the attention of the public and the State to those regions and places and objects which need preservation.

In the absence of the president of the Hudson-Fulton Commission, Gen. Stewart L. Woodford, the Hon. George W. Perkins has asked me to speak in behalf of the Commission. We have listened with great interest to the address of Mr. Perkins and to that of his Excellency, Governor Hughes, and I am sure that we are all in perfect sympathy with the sentiments they have so eloquently expressed.

The subject on which Mr. Perkins has called me to speak today— that of the preservation of the Palisades — is a subject that has been of the greatest interest to me for the past twenty years. It was my pleasure when treasurer of the American Scenic and Historic Preservation Society to have suggested to the first president of that Society, the Hon. Andrew H. Green, that it take some action with regard to the preservation of the Palisades. Mr. Green, with that wonderful foresight and quickness of action which were among his strongest characteristics, immediately said, "Why not make this a motion at the next meeting?" This was done. The Hon. Andrew H. Green then enlisted the co-operation of the Hon. Gherardi Davis to enter the bill at Albany.

To all public movements there is always some opposition. There was some to this. For that reason Governor Roosevelt, after the bill was passed, decided not to put any one connected either with the Scenic Society or with the opposition parties on the Commission, so as to insure harmony of action. *No commission could have done better than this one.*

Where have we near a great city a river as magnificent as the

Hudson? Hence of all the sites that have been chosen for park purposes none can rival this beautiful stretch of country, overlooking the noble river. On Saturday last we saw the greatest water pageant that human eyes have ever beheld. Five millions of people lined the shores of the bay and the banks of the Hudson, from Fort Hamilton to Spuyten Duyvil creek, to witness the passage of seventy warships and seven hundred merchant vessels. And yet so great and broad is our river that the exhibition seemed meager, making one realize that there was room for ten times that number of ships, and that several times as many spectators could view the pageant from the majestic Hudson's banks.

However, in our admiration of the beauties of the Hudson, we must not forget the practical problems that offer themselves in the case of a river that receives the drainage of a great city. The immense populations dwelling in New York city and its vicinity are pouring into the Hudson two million tons of sewage materials annually. This means that an enormous amount of valuable fertilizing material, derived from the products of the farms of the country, is irreparably lost in the sea, killing the fish, polluting the water, and possibly threatening the city with a pestilence. If this two million tons of material annually wasted could be taken to some vacant land on Long Island, this would mean a great saving for the people, and would stop the drain upon the richness of the land.

Parks and reservations, in the city limits or in its immediate vicinity, have increased in value so enormously within a few decades that we have learned to appreciate the foresight of those who were instrumental in condemning ground and laying out the parks, while this task could be accomplished at a reasonable cost. Central Park cost about four million dollars when condemned by the city more than fifty years ago. At 5 per cent. compound interest this sum would now amount to about forty million dollars; but conservative appraisers estimate the present value of the park at from six to eight hundred million dollars. The Bronx parks cost, about a decade ago, twenty-two million dollars; to-day the land is worth ten times that amount.

Regarded simply as an investment, there probably never has been one so satisfactory to both States as this Interstate Palisades Park. For the sum of about one-half million dollars the Commission has purchased more than thirty-five thousand feet of frontage — a frontage greater than that of the Central Park. The

acreage is about the same, but this acreage is not to be measured in New York acres, but in "Scotch acres." You probably have heard the story of the Scotchman and Englishman who had many arguments regarding the greatness of their two countries. At last, the Scotchman having gained every point, the Englishman said: "England is a larger country than Scotland." "Nay, nay," the Scotchman said, "if you flatten out the hills Scotland would be larger than England." So it is with these acres; they are piled high, they are double the size of New York acres.

This park has cost so little up to the present time, that centuries from now its price will seem as ridiculously small as does that of Blackwell's island, which sold for forty-seven thousand dollars. A single lot at Broadway and Wall street has sold for a greater sum than the whole cost of the Palisades Park, and this fortunate circumstance is largely due to the wonderful care and judgment exercised by the Palisades Commission.

The Japanese spend days and weeks and months in erecting small masses of boulders and small hillocks. What would it cost to erect a single cliff such as you see here? In Japan, a land of legends, they have a beautiful and quaint legend according to which the groaning of the trees on windy nights is the moaning of the spirits that are imprisoned within those trees, the spirits of those who in their lifetime had sold shade trees for lumber or had cut down trees in public places. What would the originators of these legends say about those over-enterprising persons who have blasted off the magnificent promontories that we had on this river?

Where so much has changed it is interesting to note that some of the aspects of nature are essentially as they were when Europeans first came to these shores. Were Henry Hudson to return in spirit, and sail up the river at night, casting anchor off Spuyten Duyvil, the early morning light would reveal to him the same outlook to the westward, the same Palisades, upon which his eye rested when he first sailed up the great river which now bears his name. With the exception of an occasional small house, the Palisades remain virtually unchanged. If, however, Hudson directed his gaze to the southeast, he would see the greatest city of a great continent, a city destined to be the greatest in the world, a city whose growth is so rapid that twenty years from now the population will be almost as dense opposite where we are standing, as it is below that point.

It is scarcely necessary to insist upon the great and lasting

benefits derived by the inhabitants of a vast city from the use of public parks. They afford the single and indispensable opportunity to enjoy a breath of fresh, pure air for those who are forced to live in crowded tenements. We are fighting at present a disease that is taking away more than 15 per cent. of our population. It seems impossible to absolutely stamp out this disease under present conditions. The bacillus of tuberculosis was discovered by a great German scientist, but it was others, and among them Americans, who first found that fresh air was the great cure-all for the white plague. Let the poor people of New York, who have almost no daylight, who have almost no good air, be given every facility to visit this park, especially on Sundays and holidays, to fill their lungs with the uncontaminated air of this beautiful tract, and I believe you can lower the death rate of New York from the white plague probably from 10 to 25 per cent.

The striking natural beauty of this park will be enhanced by a proper conservation of the forest land and by the judicious planting of new trees. A great school of agriculture and forestry is about to be founded in Columbia University. This school could work jointly with the Palisades Commission. The Park would then enjoy the advice and help of skilled foresters, and we would have a natural forest, fostered by the care of experts, not simply a myriad of horizontally cut branches, jutting out against the sky like amputated limbs.

In French cities, especially Paris, it is customary that families go out into the country on Sunday mornings. They sally forth from the city, provided with baskets full of refreshments, and go to some neighboring country place. Here, while the parents sit down on some grassy bank, the children play around and gather ferns and flowers. All accumulate a store of health, by drinking in the good air. They learn to know the forms of flowers, the shapes of leaves, and they absorb, quite unconsciously, all the manifold beauty of nature. The result is that to-day French art is one of the greatest arts of the world, because the people have become familiar with nature. They never think of destroying a tree or a plant; they are brought up to respect them from early infancy. The reason so much vandalism occurs here is that the inhabitants of our cities are but rarely brought into contact with nature.

Every man, woman, and child in the two States should be made to understand that they are the proper owners of this great park.

Recently a few thefts occurred in certain of the great French museums, and at that time a journalist connected with one of the French papers, in order to illustrate the ease with which objects could be removed, stole something successfully from a large French museum. The matter was brought to the attention of the French authorities and the reproof administered to the journalist was this, that as every museum in France belongs to the people, every man, woman, and child in France owns the whole of each museum, hence who would be mean enough, or foolish enough, to steal any part of his own property? So I may say here that if every man, woman, and child would act as a guardian of this great park, to preserve it and watch over it, and to see that others do not injure it, this would be well. The less that is done to this great natural wonder the better. Let it remain as much as possible in its natural beauty. Let us have a great driveway along this magnificent river; let us have a driveway for the rich and the poor, and for that middle class, frequently more neglected than either the rich or the poor.

The name "Morgan Boulevard" was proposed by the speaker in the North American Review for September, 1902, as a designation for the main driveway. Mr. Morgan took the initiative in saving the Palisades by his munificent gift of one hundred and twenty-five thousand dollars, and the Legislatures of both New York and New Jersey will certainly sustain the joint commission in applying his name to the driveway. We must all thank the Hon. George W. Perkins for having, at a crucial moment, represented the necessities of the situation to that greatest of Americans, who has never failed us in an emergency; purchasing Fire island at the time of the yellow fever epidemic, purchasing the Palisades and stopping the blasting there, and standing in the breach at the time of our great financial panic. Let this driveway then be known as Morgan boulevard; let these landings, and bluffs, and hills be named after some of the pioneers — the late Hon. William E. Dodge, the late Mr. J. J. Croes of the First Commission; the Hon. H. McK. Twombly, Dr. James Douglas, and the two presidents of the commissions, all of whom have done good work and have given — as the survivors will continue to give — either money or their best thought and aid.

One word in regard to the matter of the reforestation of the Adirondacks. I had the pleasure of being invited by some members of the Water Commission to examine the water-shed of the

Hudson river recently, from the standpoint of a conservator of scenic beauty. There is one lake that by private enterprise has been made a scene of absolute desolation because of unwise administration resulting from private ownership. Tens of thousands of acres in this region have been sold to the State because they had absolutely no value to anybody else. Such land might be likened to the stone which the builder had rejected. But by a wise foresight we obtained those tens of thousands of acres, and they may be the means, with proper attention to scenic beauty, of giving us the greatest and most picturesque water-sheds of any State in the eastern part of our land, where the population is most dense. This can be accomplished by a wise co-operation between the Water Board and your State Forestry Department, and with the wise and able administration of a Governor such as we have at present, who can bring these bodies together and not have them working independently. It must be borne in mind that without your forests you would have no lakes, and for twenty or thirty years, until we have reforested our hills, we will not have the proper water for this river. If our Forestry Commission and Water Commission also work together to preserve the scenic beauty of the tract, the Adirondacks can be brought back to their original state, and nowhere will there be so grand and healthful a region. At the same time, by proper administration, this State will eventually realize an annual income considerably in excess of what the entire outlay will be.

I thank you for your attention.

Address by Hon. J. Franklin Fort.

The Chairman: We have with us a very distinguished visitor from our sister State of New Jersey, the Hon. J. Franklin Fort, Governor of the State of New Jersey, who will now deliver an address, accepting the Park on behalf of the State of New Jersey, and a dedicatory address.

Hon. J. Franklin Fort (Governor of New Jersey): New Jersey's interest in the preservation of the Palisades of the Hudson should be even greater than New York's. The longest stretch of them is in our State. The work of the Commission which has led up to this day and enabled these dedicatory exercises to take place has been very great. Only praise can be given for the splendid services and public spirit of the Commissioners. It demonstrates that all disinterested effort for the public good is

not yet dead. For lack of such disinterested interest these Palisades, with all their natural beauty, would have been gone in a very few years. The hand of the ruthless destroyer in the strife for gain, which so dominates the spirit of our age, would have caused their destruction.

It is doubtful if ever so valuable a piece of property was ever purchased at such a reasonable price. The work of the Interstate Commission is an object lesson in finance for municipal park projects. No other seven hundred acres adjacent to New York or elsewhere surpass them in location or beauty. Historically these Palisades are of the greatest interest. If tablets and monuments shall be erected throughout their length and immediately adjacent to them, as they should be, to mark all the spots of concern in our advancing civilzation, and all the places of Revolutionary renown, the entire park will become one great object lesson in patriotism to our people.

The geologist can study of the formation of the earth for centuries in these cliffs. It is said by geologists that their perpendicular rock formations are of the Jurassic Period, and were forced up, through a long fissure in the earth's crust, during that period. They say this occurred over thirty million years ago. As to the accuracy of this time limit, I am unable to speak, but no doubt their guess would be better than mine. But, whatever the period of their existence or cause of their formation, the fact remains that these beautiful cliffs formed by nature are here and worthy of preservation on every account.

On these rocks stood the majestic Indian in the days when no white man inhabited our territory. His monument should be here to typify the aborigines — the first American, now gone forever.

Here should be found tablets of stone upon which should be carved in relief the "Half Moon" from which, three centuries ago, Hudson first beheld their beauty. Another such tablet should stand at each old ferry with proper carvings to portray the ferry as it was in revolutionary times; a monument at historic old Block House Point; one at Alpine to mark the place of coming of Lord Cornwallis; a statue of Washington at the point where he stood beholding the sad sight of the fall of Fort Washington.

We already have a suitable monument marking Fort Lee. Through the park erect statues of Mad Anthony Wayne, of Major-General Green, of Gen. Hugh Mercer, who constructed Fort

Lee; of General Putnam, of Robert Magaw, who made such a brave fight to hold Fort Washington, just across the river; of Captain Gooch, who carried a message across the river from Washington to the commander of Fort Washington in the midst of fighting at great risk to his life.

Those illustrations will suffice to show of what historic interest this park can be made — a place for object study, for the youth of New York and New Jersey in the history of their country, which centers about these interesting rocks.

Through all this thirteen miles of beauty and historic interest must run the proposed Hudson driveway. This the Commission should be authorized to build as they have planned, and let us hope the States will furnish the necessary funds. What an attractive, delightful driveway it will be. It will surpass in beauty that from Cave to Amalfi and transfer the most attractive drive in the world from the Mediterranean to the banks of the Hudson, in the States of New Jersey and New York. This is a great interstate enterprise and will compensate many fold for the expenditure.

The ceremonies of dedicating this great public enterprise and pleasure park would be incomplete were I to forget to commend the private beneficence which assisted to make the State aid adequate to accomplish it. J. Pierpont Morgan, always generous in gifts of art treasures and the like, by a donation of one hundred and twenty-five thousand dollars made possible the first successful beginning of this superb, natural park, and at the final accomplishment of the completion of the great Palisades Park, Mr. H. McK. Twombly has donated land of a value of not less than seventy-five thousand dollars.

These two gifts far exceed all that New Jersey has appropriated or expended, and equal fully one-half of all that the great and prosperous State of New York has done. Tablets in recognition of the magnificence of these Palisades benefactors should also stand within these attractive grounds. The future generations should know, by a proper object lesson, what these men did to make this park possible.

To the Commission, also, much praise is due. To Mr. Perkins, president of the Commission, in particular, we owe much, not only for his disinterested work, which is equally a debt we owe all the Commission, but for his personal advances, which have run into many thousands of dollars. To all the Commission we are greatly indebted for the time and labor and personal attention

given. It should be said, to their lasting credit, that the entire expense of the whole commission for all these years does not reach four hundred and fifty dollars. It is indeed gratifying to find men of affairs ready to serve the State so faithfully from motives of public spirit only. Both States owe these gentlemen much, and we are glad to recognize the obligation in this public way.

As we stand in this old Cornwallis house, well preserved, unique, historic, we feel a thrill of patriotic purpose that the surroundings impart. Our fathers did much here in the days of the birth of the Republic. We, their descendants, honor them, and benefit ourselves in preserving this park and these old buildings with their beautiful surroundings and historic memories.

For all time this Palisades reservation is to be maintained, improved and preserved for the many millions of people all about it as a pleasure ground, for recreation, and as a place of natural beauty unsurpassed in any State or clime.

The proceedings concluded with the raising of the flag, a salute by the United States warships lying in the river, music by the band and the benediction.

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